



LUXEMBOURG

# SAFETY DATA SHEET

Issue date: 10/01/2023

## 1. Identification of the substance or mixture and of the supplier

**Product:** MEPIQUAT CHLORIDE 50 SL  
**Commercial product name:** NADRAN  
**Recommended use:** Plant growth regulator  
**Supplier:** Luxembourg Industries Ltd.  
27 Hamered St., Tel Aviv, 6812509, ISRAEL  
Tel: +972 3 796 4300, Fax: +972 3 510 0474  
**Emergency phone number:** +972 3 796 4300

## 2. Hazards identification

### Classification of the product according to the Global Harmonized System of Classification and Labelling of Chemicals (GHS)

**Hazard classification:** Acute toxicity, Oral Category 5  
Acute Toxicity, Dermal Category 5

**Label elements:** Symbol: No symbol Signal word: Warning

**Hazard statement(s):** H303 May be harmful if swallowed.  
H313 May be harmful in contact with skin.

### Precautionary statement(s):

Prevention: No prevention statement.

Response: P312 Call a POISON CENTER/doctor/physician if you feel unwell.

Storage: No storage statements.

Disposal: No disposal statements.

**Hazards Not Otherwise Classified (HNOC):** Not known.

## 3. Information on ingredients contributing to hazard

**Chemical name:** 1,1-dimethylpiperidinium chloride (IUPAC)  
**Common name:** Mepiquat chloride  
**Chemical formula:** C<sub>7</sub>H<sub>16</sub>ClN  
**CAS No.:** 24307-26-4  
**Content:** 50 g/L

NADRAN 50 SDS

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# LUXEMBOURG INDUSTRIES LTD

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#### 4. First-aid measures

- Ingestion:** Call a poison control center or doctor if you feel unwell. Have person sip a glass of water if able to swallow. Do not give anything to an unconscious person.
- Inhalation:** Although exposure by inhalation is less likely to be a health concern, remove victim to fresh air and keep at rest in a position comfortable for breathing and call a poison control center or doctor if you feel unwell.
- 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.
- Skin:** Take off contaminated clothing. Wash with plenty of soap and water. Call a poison center or a doctor/physician if you feel unwell.

#### Most important symptoms and effects, both acute and delayed.

No significant health effects known, or anticipated, by any route of exposure when exposed to the product as shipped.

#### Indication of any immediate medical attention and special treatment needed.

There is no specific antidote. Treat symptomatically and give supportive therapy.

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#### 5. Fire-fighting measures

- Suitable extinguishing media:** Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material.
- Specific hazards arising from the substance or mixture:** During a fire, irritating and possibly toxic gases can be generated by thermal decomposition or combustion.
- Special protective equipment and precautions for firefighters:** Clear fire area of all non-emergency personnel. Stay upwind of fire. Wear chemical protective clothing and self-contained breathing apparatus (SCBA) with positive pressure.
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#### 6. Accidental release measures

- Personal precautions, protective equipment:** Use personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry from unnecessary and unprotected personnel.
- Environmental precautions:** Keep children and domestic animals off treated areas. Do not apply directly to water. Do not discharge into drains/surface waters/groundwater. Do not contaminate water by cleaning of equipment or disposal waste. Do not contaminate waters used

for domestic purposes, or by wildlife, including aquatic life, or for irrigation.

**Methods and materials for containment and cleaning up:**

If possible, stop the leak. Contain spilled product with an inert holding material, such as sand or vermiculite and place into a suitable disposal container. Store the container in a separate area until proper disposal. Clean up spills immediately, observing precautions in the Protective Equipment section. Flush residue with water. Wash thoroughly after handling.

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## 7. Handling and storage

**Precautions for safe handling:**

Wear suitable protective clothing. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands and exposed skin thoroughly after handling, and before eating, drinking, chewing gum, using tobacco or using the toilet.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool place. Keep container tightly closed in a dry and well ventilated place. Damaged or leaking containers which cannot be used immediately should be transferred to suitable and properly marked containers. Keep away from food, drink and animal feed.

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## 8. Exposure controls / personal protection

**Occupational exposure limits:**

OSHA PEL-TWA: Not established  
ACGIH (2015) TLV-TWA: Not established  
Workplace exposure limits (WELs): Not established

**Appropriate engineering controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations low. Ensure that eyewash stations and safety showers are in proximity to the work-station location.

**Personal protective equipment:**

Wear long-sleeved shirt and long pants and shoes plus socks. Wear waterproof gloves and safety goggles while handling the product.

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## 9. Physical and chemical properties

<b>Appearance:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Characteristic
<b>Odor threshold:</b>	Not relevant
<b>pH:</b>	7,0-8,5
<b>Melting point/Freezing point:</b>	Not relevant
<b>Boiling point:</b>	> 100 °C
<b>Evaporation rate:</b>	Not available
<b>Flash point:</b>	> 100 °C
<b>Flammability (solid, gas):</b>	Not flammable

<b>Upper/lower flammability or explosive limits:</b>	Not available
<b>Vapour pressure (25°C):</b>	Not available
<b>Vapour density:</b>	Not available
<b>Relative density:</b>	1,0 g/mL
<b>Bulk density (20°C):</b>	Not available
<b>Solubility in water (25°C):</b>	Soluble
<b>Partition coefficient n-octanol/water (23°C):</b>	$K_{ow} \log P = -3.55$ (pH 7)
<b>Ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	Not available
<b>Viscosity (20°C):</b>	1.0 mPa.s
<b>Explosive properties:</b>	The product is not explosive

## 10. Stability and reactivity

<b>Reactivity:</b>	Heavy metal salts can cause precipitation. Non-corrosive to aluminum, copper, carbon steel, or brass.
<b>Chemical stability:</b>	Stable under normal temperatures and pressures.
<b>Conditions to avoid:</b>	No available data.
<b>Incompatible materials:</b>	No available data.
<b>Hazardous decomposition products:</b>	None known.

## 11. Toxicological information

<b>Acute toxicity</b>	
Oral LD <sub>50</sub> (rat):	> 2000 mg/kg
Dermal LD <sub>50</sub> (rabbit):	> 4000 mg/kg
Inhalation LC <sub>50</sub> (4h, rat):	> 8,65 mg/L
<b>Skin corrosion/irritation</b>	
Skin irritation (rabbit):	Not irritant
<b>Serious eye damage/irritation</b>	
Eye irritation (rabbit):	Not irritant
<b>Respiratory or skin sensitization</b>	
Dermal sensitization (guinea pig):	Not a contact sensitizer
<b>Germ cell mutagenicity:</b>	No mutagenic potential
<b>Carcinogenicity:</b>	NTP: Not listed OSHA: Not listed IARC: Not listed
<b>Reproductive toxicity:</b>	No primary embryotoxic or teratogenic effects
<b>STOT* single exposure:</b>	Not available
<b>STOT repeated exposure:</b>	Not available
<b>Aspiration hazard:</b>	No aspiration hazard

\*Specific Target Organ Toxicity

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## 12. Ecological information

### Ecotoxicity:

#### Birds:

Japanese bobwhite LD<sub>50</sub>: > 2000 mg/kg

#### Fish:

Zebra fish (*Danio rerio*)

LC<sub>50</sub> (96 hrs.): > 100 mg/L

NOEC > 100 mg/L

#### Crustacean:

*Daphnia similis*

EC<sub>50</sub> (48 hrs.): > 100 mg/L

NOEC > 100 mg/L

#### Algae

*Pseudokirchleriella subcapitata*

EC<sub>50</sub> (72h) > 100 mg/L

NOEC > 100 mg/L

#### Honeybees:

*Apis mellifera*

LD<sub>50</sub>, contact (48 hrs.): > 100 µg/bee

**Persistence and degradability:** Not readily biodegradable

**Bioaccumulative potential:** No bioaccumulative potential

**Mobility in soil:** Medium to low mobility in soil

**Other adverse effects:** Not available

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## 13. Disposal considerations

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

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## 14. Transport information

Not regulated for transportation.

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## 15. Regulatory information

This data sheet complies with the requirements of the Global Harmonized System of Classification and Labelling of chemicals (GHS).

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## 16. Other information

*The information contained herein is applicable solely to the indicated product and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed, or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.*

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