



# SAFETY DATA SHEET

Issue date: 18/09/2023

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

**Product:** Pendimethalin 330 g/L (EC)  
**Product name:** SPIRIT  
**Recommended use:** Herbicide  
**Supplier:** Luxembourg Industries Ltd.  
27 Hamered St. Tel Aviv 6812509  
ISRAEL Tel: +972 3 796 4300  
**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:** Flammable liquid Category 3  
Acute toxicity-Oral Category 5  
Eye irritation: Category 2B  
STOT SE Category 3  
Toxic to reproduction Category 2  
Hazardous to the aquatic environment  
Acute aquatic toxicity: Category 2  
Chronic aquatic toxicity: Category 1

**Label elements:** Pictogram:  Signal word: Warning

**Hazard statement(s):** H226 Flammable liquid and vapour.  
H303 May be harmful if swallowed.  
H320 Causes eye irritation.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H361 Suspected of damaging fertility or the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statement(s):

**Prevention:** P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P242 Use only non-sparking tools.  
P261 Avoid breathing vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.

SPIRIT SDS  
Page 1 of 6

**LUXEMBOURG INDUSTRIES LTD**

27 Hamered St. Tel Aviv 6812509, P.O. Box 13 Tel Aviv 6100001, ISRAEL  
Tel: +972 3 796 4300 ■ Fax: +972 3 510 0474 ■ E-mail: main@luxembourg.co.il ■ www.luxpam.com

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P264 Wash hands and face thoroughly after handling.  
P273 Avoid release to the environment.

Response: P370 + P378 In case of fire: Use foam, water spray or fog for extinction.  
P303+P361+P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P391 Collect spillage.

Storage: P403 + P235 Store in a well-ventilated place. Keep cool.  
P233 Keep container tightly closed.  
P405 Store locked up.

Disposal: P501 Dispose of contents/container in accordance with national/ international regulations.

**Other hazards:** No data available

### 3. Composition/information on ingredients

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Pendimethalin	CAS No.: 40487-42-1	330 g/L	Repr. 2, H361d Aquatic acute 1, H400, M=100 Aquatic chronic 1, H410, M=100
Hydrocarbons, C9 aromatics	EC No.: 918-668-5	< 60% W/W	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3 H335; STOT SE 3 H336; EUH066 Aquatic chronic 2, H411

### 4. First-aid measures

*IF exposed or concerned: Get medical advice/attention.*

**Ingestion:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/ physician if you feel unwell.

**Inhalation:** IF INHALED; Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

**Eyes:** 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.

**Skin:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

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

No data available

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

There is no specific antidote. Treat symptomatically.

---

**5. Fire-fighting measures**

**Suitable extinguishing media:** Use foam, water spray or fog. Dry chemical powder, carbon dioxide (CO<sub>2</sub>), sand or earth may be used for small fires only. 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 chemical:** During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**Special protective equipment and precautions for fire-fighters:** Wear positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing.

---

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up:** Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

---



---

## 7. Handling and storage

<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mists/vapours/spray. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
<b>Conditions for safe storage, including any incompatibilities:</b>	Keep locked up and out of the reach of children. Store in a well-ventilated place. Keep container tightly closed.

---

## 8. Exposure controls / personal protection

<b>Occupational exposure limits:</b>	TLV (ACGIH): Pendimethalin: Not established Aromatic solvent: 25 ppm
<b>Appropriate engineering controls:</b>	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.
<b>Personal protective equipment:</b>	Wear respiratory, eye/face protection. Wear protective gloves.

---

## 9. Physical and chemical properties

<b>Appearance:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	Aromatic
<b>pH-value (1%):</b>	5-7
<b>Melting point/freezing point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flash point:</b>	> 40 °C
<b>Flammability:</b>	Flammable
<b>Vapour pressure:</b>	No data available
<b>Vapour density:</b>	No data available
<b>Bulk density:</b>	0.96-0.98 g/mL
<b>Solubility in water:</b>	No data available
<b>Partition coefficient n-octanol/water:</b>	$K_{ow} \log P = 5.2$
<b>Ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

---

---

## 10. Stability and reactivity

<b>Reactivity:</b>	Technical pendimethalin decomposes with exothermic reaction at around 200°C. Avoid heating the product to high temperatures.
<b>Chemical stability:</b>	Material is stable under normal conditions of use and storage.
<b>Possibility of hazardous reactions:</b>	May react strongly with oxidizing agents.
<b>Conditions to avoid:</b>	Avoid heat and open flame.
<b>Incompatible materials:</b>	Strong oxidizers
<b>Hazardous decomposition products:</b>	On fire emits toxic and irritating fumes.

---

## 11. Toxicological information

### Acute toxicity

Oral LD <sub>50</sub> (rat):	4781 mg/kg
Dermal LD <sub>50</sub> (rabbit):	> 5000 mg/kg

### Skin corrosion/irritation

Skin irritation (rabbit):	Not irritant
---------------------------	--------------

### Serious eye damage/irritation

Eye irritation (rabbit):	Mildly irritant
--------------------------	-----------------

### Respiratory or skin sensitization

Dermal sensitization:	Not a skin sensitizer
-----------------------	-----------------------

<b>Germ cell mutagenicity:</b>	Non mutagenic
<b>Carcinogenicity:</b>	Not classified by IARC
<b>Reproductive toxicity:</b>	No data available
<b>STOT* single exposure:</b>	No data available
<b>STOT repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available

\*Specific Target Organ Toxicity

---

## 12. Ecological information

### Ecotoxicity:

#### Birds

Mallard duck LD <sub>50</sub> :	1421 mg/kg
Northern Bobwhite quail LC <sub>50</sub> :	4187 mg/kg
Mallard duck LC <sub>50</sub> :	4640 mg/kg

#### Fish

<i>Poecillia reticulata</i> LC <sub>50</sub> (96h):	17.43 mg/L
---	------------

*Cyprinus carpio* LC<sub>50</sub> (96h): 4.9 mg/L

Daphnia

*Daphnia magna* EC<sub>50</sub> (48 hr): 3.62 mg/L

*Daphnia magna* NOEC 1 mg/L

Algae

*Scenedesmus subspicatus* ErC<sub>50</sub>: 3.44 mg/L

NOEC 0.05

Bees

LD<sub>50</sub> (48h, oral): > 20 µg a.i./bee

LD<sub>50</sub> (48h, contact): > 20 µg a.i./bee

<b>Persistence and degradability:</b>	Persistent in soil. DT <sub>90</sub> >100 days
<b>Bioaccumulative potential: RED</b>	High potential of bioaccumulate in fish BCF 5100 (whole fish)
<b>Mobility in soil: RED</b>	Immobile
<b>Other adverse effects:</b>	No data available

---

### 13. Disposal considerations

Do not reuse empty containers. Dispose of in accordance with local regulations.

---

### 14. Transport information

<b>UN No.:</b>	1993
<b>Proper shipping name:</b>	FLAMMABLE LIQUID, N.O.S. (aromatic solvents)
<b>Transport hazard class:</b>	3
<b>Packaging group:</b>	III
<b>Marine pollutant:</b>	Yes

---

### 15. Regulatory information

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

---

### 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.*

Issue date: 18/09/2023 (EA)  
Version: 3  
Replace version: 2 from 06/11/2016 (EA)