

Revision date : 2022/03/29 Version: 11.0

Page: 1/12 (30516906/SDS CPA CA/EN)

# 1. Identification

Product identifier used on the label

# **Prowl H2O Herbicide**

## Recommended use of the chemical and restriction on use

Recommended use\*: crop protection product, herbicide

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

# Details of the supplier of the safety data sheet

Company: **BASF CORPORATION** 100 Park Avenue Florham Park, NJ 07932, USA Contact address: BASF Canada Inc. 5025 Creekbank Road Building A, Floor 2 Mississauga, ON, L4W 0B6, CANADA Telephone: +1 289 360-1300

### **Emergency telephone number**

24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: (800) 454-COPE (2673)

### Other means of identification

Molecular formula: C13 H19 N3 O4 PCP # 29542/29992 Synonyms: pendimethalin

# 2. Hazards Identification

### According to Hazardous Products Regulations (HPR) (SOR/2015-17)

## **Classification of the product**

| Acute Tox. | 4 (Inhalation - mist) | Acute toxicity                                   |
|------------|-----------------------|--|
| Skin Sens. | 1B                    | Skin sensitization                               |
| STOT SE    | 3 (irritating to      | Specific target organ toxicity — single exposure |
|            | respiratory system)   |  |

Revision date : 2022/03/29 Page: 2/12 Version: 11.0 (30516906/SDS CPA CA/EN) Aquatic Acute 2 Hazardous to the aquatic environment - acute 2 Aquatic Chronic Hazardous to the aquatic environment - chronic Label elements Pictogram: Signal Word: Warning Hazard Statement: H332 Harmful if inhaled. May cause an allergic skin reaction. H317 May cause respiratory irritation. H335 H401 Toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. Precautionary Statements (Prevention): P280 Wear protective gloves. Use only outdoors or in a well-ventilated area. P271 P273 Avoid release to the environment. P260 Do not breathe mist or vapour. P272 Contaminated work clothing should not be allowed out of the workplace. Precautionary Statements (Response): P312 Call a POISON CENTER or physician if you feel unwell. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. P333 + P313 P362 + P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. Precautionary Statements (Storage): P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. Precautionary Statements (Disposal): P501 Dispose of contents/container in accordance with local regulations.

## Hazards not otherwise classified

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 2-Methyl-4-Isothiazolin-3-one CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

# 3. Composition / Information on Ingredients

### According to Hazardous Products Regulations (HPR) (SOR/2015-17)

#### pendimethalin

CAS Number: 40487-42-1 Content (W/W): 38.7 % Synonym: N-(1-Ethylpropyl)-2,6-dinitro-3,4-xylidine; Pendimethalin

Isocyanic acid, polymethylenepolyphenylene ester, polymer with 1,6-hexanediamine CAS Number: 77348-43-7 Content (W/W): 1.0 - 3.0% Synonym: No data available.

## 4. First-Aid Measures

### Description of first aid measures

### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing. Show container, label and/or safety data sheet to physician.

#### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

#### If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

#### If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. If irritation develops, seek medical attention.

### If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

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

#### Note to physician Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Revision date : 2022/03/29 Version: 11.0

# 5. Fire-Fighting Measures

### **Extinguishing media**

Suitable extinguishing media: foam, dry powder, carbon dioxide, water spray

### Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

### Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

# 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

### **Environmental precautions**

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

### Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

# 7. Handling and Storage

### Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Revision date : 2022/03/29

Version: 11.0

Page: 5/12 (30516906/SDS CPA CA/EN)

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

### Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, wellventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. Store protected against freezing.

Protect from temperatures below: -5 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

# 8. Exposure Controls/Personal Protection

# Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

No substance specific occupational exposure limits known.

### Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

### Personal protective equipment

#### **Respiratory protection:**

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours.

### Hand protection:

Chemical resistant protective gloves

### Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

### General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

Page: 6/12 (30516906/SDS\_CPA\_CA/EN)

# 9. Physical and Chemical Properties

| Form:<br>Odour:<br>Odour threshold:<br>Colour:<br>pH value:                | liquid<br>faint odour, nutty<br>Not determined due to potential health has<br>yellow to brown<br>approx. 7 - 9<br>( 21 °C)<br>(measured with the undiluted<br>substance)  | zard by inhalation. |
|--|---|---------------------|
| Freezing point:<br>Flash point:  | -9 °C<br>No flash point - Measurement made<br>up to the boiling point.  |                     |
| Flammability:<br>Lower explosion limit:                                    | not applicable<br>As a result of our experience with this<br>product and our knowledge of its<br>composition we do not expect any<br>hazard as long as the product is used<br>appropriately and in accordance with<br>the intended use. |                     |
| Upper explosion limit:   | As a result of our experience with this<br>product and our knowledge of its<br>composition we do not expect any<br>hazard as long as the product is used<br>appropriately and in accordance with<br>the intended use.                   |                     |
| Autoignition:  | 354 °C  | (DIN EN 14522)      |
| SADT:<br>Density:  | > 75 °C<br>approx. 1.18 g/cm3<br>( 20 °C)   |                     |
| Vapour density:<br>Partitioning coefficient n-<br>octanol/water (log Pow): | not applicable<br>not applicable  |                     |
| Thermal decomposition:   | 235 °C, 900 kJ/kg (DSC (OECD 113))<br>(onset temperature)<br>Not a substance liable to self-decompositi   | on according to UN  |
| Viscosity, dynamic:  | transport regulations, class 4.1.<br>128 mPa.s<br>( 20 °C)  | (OECD 114)          |
| Solubility in water:<br>Evaporation rate:<br>Other Information:            | dispersible<br>not applicable<br>If necessary, information on other physica<br>parameters is indicated in this section.   | l and chemical      |

# 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties: not fire-propagating

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

# Possibility of hazardous reactions

The product is chemically stable.

Revision date : 2022/03/29 Version: 11.0

Page: 7/12 (30516906/SDS CPA CA/EN)

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

# Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

## Incompatible materials

strong acids, strong bases, strong oxidizing agents

## Hazardous decomposition products

Decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition: 235 °C, 2.5 K/min (DSC (OECD 113)) (onset temperature) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

# 11. Toxicological information

# Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

# Acute Toxicity/Effects

### Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Oral

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 401)

Inhalation Type of value: LC50 Species: rat (male/female) Value: > 5.23 mg/l (OECD Guideline 403) Exposure time: 4 h An aerosol was tested. No mortality was observed.

Dermal Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 402)

Assessment other acute effects Assessment of STOT single:

Revision date : 2022/03/29 Version: 11.0

Page: 8/12 (30516906/SDS CPA CA/EN)

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

### Irritation / corrosion

Assessment of irritating effects: Not irritating to the eyes. Skin contact causes slight irritation. May cause slight but temporary irritation to the eyes. May cause slight irritation to the skin.

<u>Skin</u> Species: rabbit Result: Slightly irritating. Method: OECD Guideline 404

Eye Species: rabbit Result: non-irritant Method: OECD Guideline 405

Sensitization Assessment of sensitization: Sensitization after skin contact possible.

Mouse Local Lymph Node Assay (LLNA) Species: guinea pig Result: sensitizing Method: OECD Guideline 406

### Aspiration Hazard

The product has not been tested. The statement has been derived from the properties of the individual components. No aspiration hazard expected.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

#### Information on: pendimethalin

Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. Adaptive effects were observed after repeated exposure in animal studies.

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### Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

### **Carcinogenicity**

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

#### Information on: pendimethalin

Assessment of carcinogenicity: In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

### Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

#### Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information Misuse can be harmful to health.

<u>Medical conditions aggravated by overexposure</u> Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

# 12. Ecological Information

### Toxicity

Aquatic toxicity Assessment of aquatic toxicity: Toxic to aquatic life with long lasting effects.

Very toxic (acute effect) to aquatic organisms.

<u>Toxicity to fish</u> LC50 (96 h) 20.36 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

<u>Aquatic invertebrates</u> EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC50 (72 h) 1.49 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

EC10 (72 h) 0.14 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

EC50 (7 d) 19.25 mg/l (growth rate), Lemna gibba (OECD guideline 221)

No observed effect concentration (7 d) 1.0 mg/l (growth rate), Lemna gibba (OECD guideline 221)

<u>Assessment of terrestrial toxicity</u> Acutely harmful to terrestrial organisms.

### Persistence and degradability

Assessment biodegradation and elimination (H2O)

Information on: pendimethalin

Not readily biodegradable (by OECD criteria).

Mobility in soil

<u>Assessment transport between environmental compartments</u> The product has not been tested. The statement has been derived from the properties of the individual components.

Page: 10/12

(30516906/SDS\_CPA\_CA/EN)

Information on: pendimethalin

The substance will slowly evaporate into the atmosphere from the water surface. Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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### Additional information

Other ecotoxicological advice: Do not discharge product into the environment without control.

### 13. Disposal considerations

### Waste disposal of substance:

See product label for disposal and recycling instructions.

### Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

### 14. Transport Information

Land transport

| TDG  |  |
|--|--|
|  | Not classified as a dangerous good under transport regulations   |
| <b>Sea transport</b><br>IMDG   |  |
| Hazard class:<br>Packing group:<br>ID number:<br>Hazard label:<br>Marine pollutant:<br>Proper shipping name: | 9<br>III<br>UN 3082<br>9, EHSM<br>YES<br>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S. (contains PENDIMETHALIN) |
| <b>Air transport</b><br>IATA/ICAO  |  |
| Hazard class:<br>Packing group:<br>ID number:<br>Hazard label:<br>Proper shipping name:                      | 9<br>III<br>UN 3082<br>9, EHSM<br>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,   |

N.O.S. (contains PENDIMETHALIN)

Revision date : 2022/03/29 Version: 11.0

Page: 11/12 (30516906/SDS CPA CA/EN)

**Further information** 

Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

# 15. Regulatory Information

## Federal Regulations

Registration status:

Crop Protection DSL, CA released / exempt

Chemical DSL, CA released; restriction on quantity / not listed

### Labeling requirements under Pest Control Products Act

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

Causes eye irritation. HARMFUL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN. Avoid contact with the skin, eyes and clothing.

There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

## 16. Other Information

### SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2022/03/29

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT

Revision date : 2022/03/29 Version: 11.0

Page: 12/12 (30516906/SDS CPA CA/EN)

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