

**TIDE INTERNATIONAL USA, INC.****-A DIVISION OF TIDE GROUP**

REVISION DATE: 03/08/2022 VERSION 2.0

**[1. Identification]**

Product name: Tide Forchlorfenuron 0.8 SL PGR  
Chemical name: N-(2-Chloro-4-pyridyl)-N'-phenylurea  
Chemical family: Phenylurea  
EPA Reg. No.: 84229-51  
Recommended Use: Plant growth regulator  
Supplier: Tide International, USA, INC.  
21 Hubble, Irvine, CA 92618  
1-949-679-3535

For medical or chemical\* emergencies: Call CHEMTREC®: 1-800-424-9300 (24 hours/day)  
\*Spill, leak, fire, exposure or accident

For non-emergency product information: Call the NATIONAL PESTICIDE INFORMATION CENTER  
1-800-858-7378 (Monday - Friday, 8-12 PM Pacific time)

**[2. Hazard(s) Identification]****According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR §1910.1200 (2012)****Classification of the substance or mixture**

Flammable liquid (Category 3)

Acute inhalation toxicity (Category 4)

Eye irritation (Category 2B)

**GHS label elements:****GHS pictograms****Signal Word: WARNING****GHS Hazard Statements:**

H226 Flammable liquid and vapor.

H332 Harmful if inhaled

H320 Causes eye irritation

**Precautionary Statements:****Prevention:**

P210 Keep away from heat/hot surfaces/sparks/open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharge.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing fume/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P264 Wash hands and exposed skin thoroughly after handling.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P317 Get medical help.

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.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

**Routes of exposure:** Eyes, skin, ingestion & inhalation.

**Carcinogenicity:** Carcinogenicity studies indicated no evidence of an increase in the incidence of tumors in either the rat or the mouse, and Forchlorfenuron has been classified as not likely to be a human carcinogen.

**Other hazard information:**

No data available.

**[3. Composition / Information on Ingredients]**

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Active ingredient	CAS No.	Content (w/w,%)
Forchlorfenuron	68157-60-8	≥0.8
1-Methoxy-2-propanol	107-98-2	30.0
Other ingredient*	-	Balance

\*Ingredients not specifically listed are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

**[4. First aid measures]**

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

**If in eyes:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**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.

**Most important symptoms/effects, acute and delayed:** No information available.

**Note to physician:** No information available.

**[5. Fire-Fighting measures]**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media:** No data available

**Special hazards arising from the chemical (hazardous combustion products):** Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas.

**Special protective equipment and precautions for fire-fighters:** A self-contained breathing apparatus and suitable

protective clothing must be worn in fire conditions.

**Advice for firefighters:** 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. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

## [6. Accidental release measures]

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment.

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions:** 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 washwater or rinsate.

**Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## [7. Handling and Storage]

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 4 - 50 °C

## [8. Exposure controls / Personal protection]

**Control parameters:**

Components.	CAS-No	Control parameters	Basis
Forchlorfenuron	68157-60-8	No Data Available.	TWA OSHA/ACGIH
1-Methoxy-2-propanol	107-98-2	100 ppm TWA; 150 ppm STEL 100 ppm TWA; 360 mg/m <sup>3</sup> TWA none listed	ACGIH NIOSH OSHA

**Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Individual protection measures, such as personal protective equipment (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate ≥14mils, butyl rubber ≥ 14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥ 14 mils, or polyvinyl chloride (PVC) ≥ 14 mils, Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear, such as goggles, safety shield, or safety glasses.

**Respiratory protection** When respiratory protection is necessary under the conditions of use, wear a respirator approved for pesticides by the National Institute for Occupational Safety and Health (NIOSH).

**Hand protection** Chemical resistant protective gloves.

**Eye protection** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses with side-shields. Tightly fitting safety goggle.

**Skin and body protection** To avoid contact with skin, wear long pants, long-sleeved shirt, shoes and socks. An emergency shower or water supply should be readily accessible to the work area.

**General protective measures:** Handle in accordance with good industrial hygiene and safety practice. Do not breathe

vapor or mist. Do not eat, drink or smoke when using this product. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

## [9. Physical and chemical properties]

**Appearance:** Colorless transparent viscous liquid

**Odor:** Pungent

**Odor threshold:** No data available.

**PH:** 5.0-8.0

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flashpoint:** 56.3°C

**Evaporation rate:** No data available.

**Upper/lower flammability or explosive limits:** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Relative density:** 1.0028

**Solubility:** No data available.

**Octanol/water partition coefficient:** No data available.

**Auto-ignition temperature:** No data available.

**Decomposition temperature:** No data available.

**Viscosity:** 0.015pa.s@20°C; 0.017pa.s@40°C.

**Note** Physical data are typical values based on material test but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis or as a specification.

## [10. Stability and reactivity]

**Reactivity:** No data available.

**Chemical Stability:** No data available.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** No data available.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous decomposition products:** May release irritating and toxic gases due to thermal decomposition or combustion

## [11. Toxicological information]

**Exposure routes:** Eyes, skin, ingestion & inhalation.

**Toxicity:** (Based on similar product)

**Acute Toxicity:**

**Acute oral (Rat):** LD<sub>50</sub> > 5000 mg/kg b.w.

**Acute dermal (Rat):** LD<sub>50</sub> > 5050 mg/kg b.w.

**Acute inhalation (Rats):** LC<sub>50</sub> > 2.14 mg/L.

**Acute Skin irritation:** Slightly irritating

**Acute Eye irritation:** Minimally irritating

**Skin sensitization:** Not a skin sensitizer

**Carcinogenicity:** Carcinogenicity studies indicated no evidence of an increase in the incidence of tumors in either the rat or the mouse, and Forchlorfenuron has been classified as not likely to be a human carcinogen.

**Reproductive/Developmental effects:** The only effects observed in a developmental study in rats were increased incidence of alopecia and decreases in maternal and fetal body weights at the highest dose tested. The effects in

reproductive/offspring based on pup mortality, emaciation, and decrease in pups/litter occurred at the same or higher doses at which effects were observed in the parental animals. No evidence of increased qualitative or quantitative susceptibility.

**Chronic/Subchronic effects:** In subchronic and chronic dog studies, dose-related effects were generally limited to decreased body weight and body weight gains. In rats, the only organ that appeared to be affected was the kidney, which showed supportive inflammation in males and non-supportive interstitial nephritis in females only in a 2-year rat study.

**Neurotoxicity:** No data available.

## [12. Ecological information]

**Ecotoxicity** (Based on Forchlorfenuron Technical):

Rainbow trout LC<sub>50</sub> > 9.2 ppm

Bluegill sunfish LC<sub>50</sub> > 8.8 ppm

Daphnia magna EC<sub>50</sub> 8.0 ppm (flow through)

Bobwhite quail LD<sub>50</sub> > 2250 ppm

Bobwhite quail LC<sub>50</sub> > 5620 ppm (subchronic)

Mallard duck LC<sub>50</sub> > 5620ppm (subchronic)

**Persistence/Degradability:** Forchlorfenuron is highly persistent in the environment with laboratory half-lives ranging from 226 – 578 days in terrestrial environments and stable in aquatic environments.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Environmental Precautions:** 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 washwater or rinsate.

## [13. Disposal considerations]

Dispose of product containers, water containers, and residues according to local regulations.

**Pesticide Disposal:**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

## [14. Transport information]

In accordance with U.S. DOT

<b>UN number:</b>	NA1993
<b>UN proper shipping name:</b>	COMBUSTIBLE LIQUID, N.O.S. (contains 1-methoxy-2-propanol)
<b>Hazard Class:</b>	Comb liq
<b>Packing Group:</b>	III

In accordance with IATA / IMDG

<b>UN number:</b>	1993
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<b>UN proper shipping name:</b>	FLAMMABLE LIQUIDS, N.O.S. (contains 1-methoxy-2-propanol)
<b>Hazard Class:</b>	3
<b>Packing Group:</b>	III
<b>Marine pollutant</b>	No

## [15. Regulatory information]

### FIFRA

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. The following is the hazard information as required on the pesticide label:

**EPA Reg. No.:** 84229-51

**EPA Signal word:** CAUTION

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION - Causes moderate eye irritation. Harmful if absorbed through skin or swallowed. Avoid contact with eyes, skin or clothing. Wear long sleeved shirt, long pants, shoes plus socks, chemical resistant gloves, and goggles, safety shield or safety glasses. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### ENVIRONMENTAL HAZARDOUS

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 washwater or rinsate.

#### US Federal Regulations

**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.

**TSCA STATUS:** All ingredients are listed on the TSCA inventory or are not required to be listed on the TSCA inventory.

**CA PROPOSITION 65:** California No Significant Risk Level: None of the chemicals in this product are listed.

<b>STATE RIGHT-TO-KNOW:</b>	<b>CAS Number</b>	<b>List</b>
<b>Chemical Name</b>		
Propylene Glycol	57-55-6	NJ, PA
1-Methoxy-2-propanol	107-98-2	CA, PA, NJ, MN, MA

## [16. Other information]

*The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Tide International, USA, INC. assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.*