

PYROIL® WINDSHIELD DEICER  
PYDI11.5

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	PYROIL® WINDSHIELD DEICER	
Product code	PYDI11.5	
Product Use Description	No data	

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance: aerosol

Toxic by inhalation, Skin sensitizer, Moderate skin irritant, Moderate eye irritant.

**Potential Health Effects**

**Routes of exposure**

Inhalation, Skin absorption, Skin contact

**Eye contact**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin contact**

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Although rare, skin contact with ethylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

**Ingestion**

Swallowing this material may be harmful.

**Inhalation**

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Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin

**Symptoms**

stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, visual impairment (including blindness), and death

**Target Organs**

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: liver abnormalities, spleen damage, nervous system damage, eye damage, lung damage, brain damage, kidney damage, visual impairment, kidney damage, liver damage

**Carcinogenicity**

No data

**Reproductive hazard.**

Ethylene glycol has caused birth defects in animal studies at high oral doses. However, it did not cause harm to the pregnant animal or to the fetus when applied to the skin of the pregnant animal.

**Other information**

No data

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Components</b>	<b>CAS-No.</b>	<b>Concentration</b>
METHANOL	67-56-1	>=60-<70%
ETHYLENE GLYCOL	107-21-1	>=5-<10%
CARBON DIOXIDE	124-38-9	>=1.5-<5%

**4. FIRST AID MEASURES**

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### **Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

### **Skin**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

### **Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

### **Inhalation**

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

### **Notes to physician**

**Hazards:** This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.

**Treatment:** This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as

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soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

## **5. FIRE-FIGHTING MEASURES**

### **Suitable extinguishing media**

Water mist, carbon dioxide (CO<sub>2</sub>), dry chemical

### **Hazardous combustion products**

May form:, carbon dioxide and carbon monoxide

### **Precautions for fire-fighting**

If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions**

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

### **Environmental precautions**

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

### **Methods for cleaning up**

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Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.

**7. HANDLING AND STORAGE**

**Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage**

No data

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Guidelines**

<b>METHANOL</b>		<b>67-56-1</b>	
ACGIH	time weighted average	200 ppm	
ACGIH	Short term exposure limit	250 ppm	
NIOSH	Recommended exposure limit	200 ppm	
	(REL):		
NIOSH	Recommended exposure limit	260 mg/m3	
	(REL):		
NIOSH	Short term exposure limit	250 ppm	
NIOSH	Short term exposure limit	325 mg/m3	
OSHA Z1	Permissible exposure limit	200 ppm	
OSHA Z1	Permissible exposure limit	260 mg/m3	
<b>ETHYLENE GLYCOL</b>		<b>107-21-1</b>	
ACGIH	Ceiling Limit Value:	100 mg/m3	Aerosol.
<b>CARBON DIOXIDE</b>		<b>124-38-9</b>	
ACGIH	time weighted average	5,000 ppm	
ACGIH	Short term exposure limit	30,000 ppm	
NIOSH	Recommended exposure limit	5,000 ppm	
	(REL):		
NIOSH	Recommended exposure limit	9,000 mg/m3	
	(REL):		
NIOSH	Short term exposure limit	30,000 ppm	
NIOSH	Short term exposure limit	54,000 mg/m3	
OSHA Z1	Permissible exposure limit	5,000 ppm	
OSHA Z1	Permissible exposure limit	9,000 mg/m3	

**General advice**

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These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure controls**

Not required under normal conditions of use.

**Eye protection**

Not required under normal conditions of use.

**Skin and body protection**

Not required under normal conditions of use.

Other protective equipment: not required under normal conditions of use.

**Respiratory protection**

Respiratory protection is not required under normal conditions of use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	aerosol
<b>Form</b>	No data
<b>Colour</b>	No data
<b>Odour</b>	No data
<b>Boiling point/range</b>	No data
<b>pH</b>	No data
<b>Flash point</b>	No data
<b>Evaporation rate</b>	No data
<b>Explosion limits</b>	No data
<b>Vapour pressure</b>	No data
<b>Vapour density</b>	No data
<b>Density</b>	0.7972 g/cm <sup>3</sup> @ 60.01 °F / 15.56 °C
	No data
<b>Solubility</b>	No data
<b>Partition coefficient (n-octanol/water)</b>	No data
<b>Autoignition temperature</b>	No data

**10. STABILITY AND REACTIVITY**

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**Stability**

Stable.

**Conditions to avoid**

None known.

**Incompatible products**

Avoid contact with:, strong oxidizing agents

**Hazardous decomposition products**

May form:, carbon dioxide and carbon monoxide

**Hazardous reactions**

Product will not undergo hazardous polymerization.

**Thermal decomposition**

No data

**11. TOXICOLOGICAL INFORMATION**

**Acute oral toxicity**

METHANOL	LD 50 Rat: 5,045 mg/kg
ETHYLENE GLYCOL	LD 50 Rat: 6,140 mg/kg LD 50 Mouse: 14,600 mg/kg

**Acute inhalation toxicity**

METHANOL	LC 50 Rat: 64000 ppm, 4 h
ETHYLENE GLYCOL	LC 50 Rat: 10.9 mg/l, 1 h

**Acute dermal toxicity**

METHANOL	LD 50 Rabbit: 12,800 mg/kg
ETHYLENE GLYCOL	LD 50 Rabbit: 10,611 mg/kg

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## 12. ECOLOGICAL INFORMATION

### Aquatic toxicity

#### Acute and Prolonged Toxicity to Fish

No data

#### Acute Toxicity to Aquatic Invertebrates

No data

### Environmental fate and pathways

No data

## 13. DISPOSAL CONSIDERATIONS

### Waste disposal methods

Destroy by liquid incineration. Dispose of in accordance with all applicable local, state and federal regulations.

## 14. TRANSPORT INFORMATION

### IMDG:

UN1950, AEROSOLS 2.1,

### IATA\_P:

UN1950, Aerosols, flammable 2.1,

### IATA\_C:

UN1950, Aerosols, flammable 2.1,

### CFR\_ROAD:

UN1950, Aerosols 2.1,

### CFR\_RAIL:

UN1950, Aerosols 2.1,

### CFR\_INWTR:

UN1950, Aerosols 2.1,

### IMDG\_INWTR:

UN1950, AEROSOLS 2.1,

### IMDG\_ROAD:

UN1950, AEROSOLS 2.1,

### IMDG\_RAIL:

UN1950, AEROSOLS 2.1,

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Dangerous goods descriptions may not reflect package size, quantity, end-use or region-specific exceptions that can be applied to shipments. Consult shipping documents for material-specific descriptions.

**15. REGULATORY INFORMATION**

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

**SARA Hazard Classification** Acute Health Hazard

**SARA 313 Component(s)**

METHANOL	67-56-1	62%
ETHYLENE GLYCOL	107-21-1	6%

**OSHA Hazards**

Toxic by inhalation  
Skin sensitizer  
Moderate skin irritant  
Moderate eye irritant

	<b>Health</b>	<b>Flammability</b>	<b>Reactivity</b>	<b>Other</b>
<b>HMIS</b>				No data
<b>NFPA</b>				No data

**16. OTHER INFORMATION**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).