1.1.Product identifierProduct formTrade nameProduct code1.2.Relevant identified uses of theUse of the substance/mixture1.3.Details of the supplier of the saWarren Oil Company, Inc.2340 Highway 301 NorthDunn, NC 28334T 910-892-6456 - F 910-892-4245	substance/mixture and of the company/undertaking
Product form Trade name Product code <b>1.2.</b> Relevant identified uses of the Use of the substance/mixture <b>1.3.</b> Details of the supplier of the sa Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	AUTOGUARD DE-ICER 12 OZ     T01163  substance or mixture and uses advised against     Follow Label Directions
Trade name Product code 1.2. Relevant identified uses of the Use of the substance/mixture 1.3. Details of the supplier of the sa Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	AUTOGUARD DE-ICER 12 OZ     T01163  substance or mixture and uses advised against     Follow Label Directions
Product code1.2.Relevant identified uses of theUse of the substance/mixture1.3.Details of the supplier of the saWarren Oil Company, Inc.2340 Highway 301 NorthDunn, NC 28334T 910-892-6456 - F 910-892-4245	: 701163 substance or mixture and uses advised against : Follow Label Directions
<ul> <li>1.2. Relevant identified uses of the Use of the substance/mixture</li> <li>1.3. Details of the supplier of the sate Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334</li> <li>T 910-892-6456 - F 910-892-4245</li> </ul>	substance or mixture and uses advised against : Follow Label Directions
Use of the substance/mixture <b>1.3.</b> Details of the supplier of the sa Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	: Follow Label Directions
Use of the substance/mixture <b>1.3.</b> Details of the supplier of the sa Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	: Follow Label Directions
Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	afety data sheet
Warren Oil Company, Inc. 2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	
2340 Highway 301 North Dunn, NC 28334 T 910-892-6456 - F 910-892-4245	
1.4. Emergency telephone number	
Emergency number	: CHEMTREC 24 Hour 1-800-424-9300
Ç ,	
SECTION 2: Hazards identification	
2.1. Classification of the substance	e or mixture
Classification (GHS-US)	
Flam. Aerosol 1         H222           Flam. Liq. 2         H225           Acute Tox. 1 (Oral)         H300           Eye Dam. 1         H318           Repr. 1B         H360           STOT SE 1         H370	
2.2. Label elements	
GHS-US labeling	
	GHS02 GHS05 GHS06 GHS08
Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	<ul> <li>H222 - Extremely flammable aerosol</li> <li>H225 - Highly flammable liquid and vapor</li> <li>H300 - Fatal if swallowed</li> <li>H318 - Causes serious eye damage</li> <li>H360 - May damage fertility or the unborn child</li> <li>H370 - Causes damage to organs</li> </ul>
	<ul> <li>P202 - Do not handle until all safety precautions have been read and understood</li> <li>P210 - Keep away from heat/sparks/open flames/hot surfaces No smoking</li> <li>P211 - Do not spray on an open flame or other ignition source</li> <li>P233 - Keep container tightly closed</li> <li>P240 - Ground/bond container and receiving equipment</li> <li>P241 - Use explosion-proof electrical/ventilating/lighting/ equipment</li> <li>P242 - Use only non-sparking tools</li> <li>P243 - Take precautionary measures against static discharge</li> <li>P251 - Pressurized container: Do not pierce or burn, even after use</li> <li>P260 - Do not breathe dust/fume/gas/mist/vapors/spray</li> <li>P264 - Wash thoroughly after handling</li> <li>P270 - Do no eat, drink or smoke when using this product</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician</li> <li>P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower</li> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention</li> <li>P310 - Immediately call a POISON CENTER for Several minutes. Remove containes, if present and easy to do. Continue rinsing</li> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention</li> <li>P310 - Immediately call a POISON CENTER/doctor/</li> <li>P321 - Specific treatment (see on this label)</li> </ul>
	P330 - If swallowed, rinse mouth P370+P378 - In case of fire: Use for extinction
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- P403+P235 Store in a well-ventilated place. Keep cool
- P405 Store locked up
  - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50
    - P501 Dispose of contents/container to ...

## 2.3. Other hazards

Other hazards not contributing to the classification

: Contains gas under pressure; may explode if heated.

2.4. Unknown acute toxicity (GHS-US)

No data available

### **SECTION 3: Composition/information on ingredients**

3.1. Substances

Not applicable

Name	Product identifier	%	Classification (GHS-US)
methanol	(CAS No) 67-56-1	50 - 70	Flam. Liq. 2, H225 Acute Tox. 1 (Oral), H300 Eye Dam. 1, H318 Repr. 1B, H360 STOT SE 1, H370
Petroleum gases, liquefied, sweetened	(CAS No) 68476-86-8	10 - 30	Flam. Liq. 1, H224
ethylene glycol	(CAS No) 107-21-1	10 - 30	Acute Tox. 1 (Oral), H300 Acute Tox. 4 (Inhalation:vapour), H332
DI - Water		10 - 30	Not classified
2-propanol	(CAS No) 67-63-0	1 - 5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
2-aminoethanol	(CAS No) 141-43-5	<= 0.0714	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312
AQUA	(CAS No) 7732-18-5	0.0392 - 0.0408	Not classified
sodium-2(3H)-benzothiazolethione,conc=50%,aqueous solution	(CAS No) 2492-26-4	0.0392 - 0.0408	Skin Corr. 1A, H314
PROPRIETARY INHIBITOR PACKAGE	(CAS No) Proprietary	<= 0.0252	Not classified

# SECTION 4: First aid measures

4.1. Description of first ald measures	
First-aid measures general	<ul> <li>Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medica advice/attention. Call a POISON CENTER or doctor/physician. Specific treatment (see on thi label).</li> </ul>
First-aid measures after inhalation	: Coughing. Remove to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact	<ul> <li>Direct contact with the eyes is likely to be irritating. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.</li> </ul>
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see on this label).
4.2. Most important symptoms and e	ifects, both acute and delayed
Symptoms/injuries	: May damage fertility or the unborn child. Causes damage to organs.
Symptoms/injuries after inhalation	: Shortness of breath.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Fatal if swallowed.

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

No additional information available

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.	
Unsuitable extinguishing media	: Do not use a heavy water stream.	
5.2. Special hazards arising from the se	ubstance or mixture	
Fire hazard	: Extremely flammable aerosol. Highly flammable liquid and vapor.	
Explosion hazard	: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form flammable/explosive vapor-air mixture.	

according to Federal Register / Vol. 77, No. 58 / Monday,	March 20, 2012 / Rules and Regulations	
5.3. Advice for firefighters		
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. DO NOT fight fire when fire reaches explosives. Evacuate area.	
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.	
Other information	: Aerosol level 3.	
SECTION 6: Accidental release meas		
6.1. Personal precautions, protective equipment and emergency procedures General measures No naked lights. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove		
General measures	: No naked lights. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges.	
6.1.1. For non-emergency personnel		
Emergency procedures	: Evacuate unnecessary personnel.	
6.1.2. For emergency responders		
Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.	
Emergency procedures	: Ventilate area.	
6.2. Environmental precautions		
Prevent entry to sewers and public waters. Notify	authorities if liquid enters sewers or public waters.	
6.3. Methods and material for containme	ent and cleaning up	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.	
6.4. Reference to other sections		
See Heading 8. Exposure controls and personal	protection.	
SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed	: Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, even after use. Handle empty containers with care because residual vapors are flammable.	
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not spray on an open flame or other ignition source. No naked lights. No smoking. Use only non-sparking tools. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapors/spray.	
Hygiene measures	: Wash thoroughly after handling. Do no eat, drink or smoke when using this product.	
7.2. Conditions for safe storage, including	ng any incompatibilities	
Technical measures	<ul> <li>Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment.</li> </ul>	
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50°C/ 122°F. Keep in firepro of place. Keep container tightly closed.	
Incompatible products	: Strong bases. Strong acids.	
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources.	
7.3. Specific end use(s)		
Follow Label Directions.		
SECTION 8: Exposure controls/pers	onal protection	
8.1. Control parameters		
methanol (67-56-1)		

methanol (67-56-1)			
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA ACGIH	ACGIH STEL (ppm)	250 ppm	
2-propanol (67-63-0)			
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA ACGIH	ACGIH STEL (ppm)	400 ppm	
ethylene glycol (107-21-1)			
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m³	

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ccording to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations			
2-aminoethanol (141-43-5)			
USA ACGIH A	ACGIH TWA (ppm)		3 ppm
USA ACGIH A	ACGIH STEL (ppm)		6 ppm
8.2. Exposure controls			
Personal protective equipment	:	Avoid all unnecessary exposure.	
Hand protection	:	Wear protective gloves.	
Eye protection	:	Chemical goggles or safety glasses.	
Respiratory protection	:	Where exposure through inhalation m recommended.	ay occur from use, respiratory protection equipment is
Other information	:	Do not eat, drink or smoke during use	<u>.</u>
SECTION 9: Physical and	chemical pro	operties	
9.1. Information on basic ph	nysical and che	mical properties	
Physical state	:	Liquid	
Appearance	:	Colorless to pale yellow liquid.	
Color	:	Colourless to light yellow.	
Odor	:	characteristic.	
Odor threshold	:	No data available	
рН	:	No data available	
Relative evaporation rate (butyl ace	etate=1) :	No data available	
Melting point	:	No data available	
Freezing point	:	No data available	
Boiling point	:	65 °C	
Flash point	:	-128 ℃ (Propellant)	
Self ignition temperature		455 ℃	
Decomposition temperature	:	No data available	
Flammability (solid, gas)	:	No data available	
Vapor pressure	:	63.9 mm Hg (Liquid)	
Relative vapor density at 20 ℃	:	No data available	
Relative density	:	0.869 @ 60 F	
Solubility	:	Soluble in water.	
Log Pow	:	No data available	
Log Kow	:	No data available	
Viscosity, kinematic	:	No data available	

#### Explosive properties : No data available Oxidizing properties : No data available Explosive limits : No data available 9.2. **Other information**

VOC content

Viscosity, dynamic

: 76.03 %

: No data available

#### 10.1. Reactivity

**SECTION 10: Stability and reactivity** 

No additional information available

#### 10.2. **Chemical stability**

Not established. Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3.	Possibility of hazardous reactions
Not est	tablished.
10.4.	Conditions to avoid
Direct s	sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.
10.5.	Incompatible materials
Strong	acids. Strong bases.
10.6.	Hazardous decomposition products
fumo (	Carbon monovido. Carbon diavido. May ralagos flammable gases

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 11: Toxicological information

11.1. Information on toxicological effects

methanol (67-56-1)         LD50 oral rat       > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat)         LD50 dermal rabbit       15800 mg/kg (Rabbit)         LC50 inhalation rat (mg/l)       85 mg/l/4h (Rat)         LC50 inhalation rat (ppm)       64000 ppm/4h (Rat)         2-propanol (67-63-0)       5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value, 5840 mg/kg bodyweight; Rat; Rat; Experimental value, 16.4; Rabbit; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
LD50 dermal rabbit       15800 mg/kg (Rabbit)         LC50 inhalation rat (mg/l)       85 mg/l/4h (Rat)         LC50 inhalation rat (ppm)       64000 ppm/4h (Rat)         2-propanol (67-63-0)       12870 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
LC50 inhalation rat (mg/l)       85 mg/l/4h (Rat)         LC50 inhalation rat (ppm)       64000 ppm/4h (Rat)         2-propanol (67-63-0)       Experimental value         LD50 oral rat       5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
LC50 inhalation rat (ppm)       64000 ppm/4h (Rat)         2-propanol (67-63-0)          LD50 oral rat       5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
2-propanol (67-63-0)         LD50 oral rat       5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
LD50 oral rat       5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
Rat; Rat; Experimental value)         LD50 dermal rabbit       12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)         LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
value)       LC50 inhalation rat (mg/l)       73 mg/l/4h (Rat)
ethylene glycol (107-21-1)
LD50 oral rat > 5000 mg/kg (Rat)
sodium-2(3H)-benzothiazolethione.conc=50%,aqueous solution (2492-26-4)
LD50 oral rat $> 2000 \text{ mg/kg}$ (Rat)
LD50 dermal rabbit > 2000 mg/kg (Rabbit)
2-aminoethanol (141-43-5)
LD50 oral rat 1720 mg/kg (Rat)
LD50 dermal rabbit 1018 mg/kg (Rabbit)
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classifiedBased on available data, the classification criteria are not met
Carcinogenicity : Not classified
2-propanol (67-63-0) IARC group 3
Reproductive toxicity : May damage fertility or the unborn child.Based on available data, the classification criteria are
not met
Specific target organ toxicity (single exposure) : Causes damage to organs.
Specific target organ toxicity (repeated : Not classifiedBased on available data, the classification criteria are not met exposure)
Aspiration hazard : Not classifiedBased on available data, the classification criteria are not met
Potential Adverse human health effects and : Fatal if swallowed. symptoms
Symptoms/injuries after inhalation : Shortness of breath.
Symptoms/injuries after eye contact : Causes serious eye damage.
Symptoms/injuries after ingestion : Fatal if swallowed.

## **SECTION 12: Ecological information**

12.1. Toxicity

methanol (67-56-1)		
LC50 fish 1	15400 mg/l (96 h; Lepomis macrochirus; LETHAL)	
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; LETHAL)	
LC50 fish 2	10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 2	24500 mg/l (48 h; Daphnia magna)	
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)	
Threshold limit algae 1	530 mg/l (192 h; Microcystis aeruginosa)	
Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)	
2-propanol (67-63-0)		
LC50 fish 1	4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)	
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)	
LC50 fish 2	9640 mg/l (96 h; Pimephales promelas; LETHAL)	
16/09/2013	EN (English US)	5/10

2-propanol (67-63-0)			
EC50 Daphnia 2	13299 mg/l (48 h; Daphnia magna)		
Threshold limit algae 1	> 1000 mg/l (72 h; Scenedesmus subspicatus; GROWTH RATE)		
Threshold limit algae 2	1800 mg/l (72 h; Algae; CELL NUMBERS)		
ethylene glycol (107-21-1)			
LC50 fish 1	53000 mg/l (96 h; Pimephales promelas; Static system)		
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna)		
LC50 fish 2	40761 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Static system)		
Threshold limit algae 1	> 10000 mg/l (168 h; Scenedesmus quadricauda)		
Threshold limit algae 2	2000 mg/l (192 h; Microcystis aeruginosa)		
sodium-2(3H)-benzothiazolethione,conc=50%	aqueous solution (2492-26-4)		
LC50 fish 1	3.8 mg/l (96 h; Lepomis macrochirus; PURE SUBSTANCE)		
EC50 Daphnia 1	19 mg/l (48 h; Daphnia magna; PURE SUBSTANCE)		
LC50 fish 2	1.8 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); PURE SUBSTANCE)		
2-aminoethanol (141-43-5)			
LC50 fish 1	150 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)		
EC50 Daphnia 1	140 mg/l (24 h; Daphnia magna)		
LC50 fish 2	329.16 mg/l (96 h; Lepomis macrochirus)		
TLM fish 1	100 - 1000,96 h; Pisces		
TLM other aquatic organisms 1	100 - 1000,96 h		
Threshold limit algae 1	0.97 mg/l (192 h; Scenedesmus quadricauda; INHIBITORY)		
Threshold limit algae 2	35 mg/l (72 h; Algae)		
5			
12.2. Persistence and degradability			
AUTOGUARD DE-ICER 12 OZ			
Persistence and degradability	Not established.		
Petroleum gases, liquefied, sweetened (6847	6-86-8)		
Persistence and degradability	Not established.		
methanol (67-56-1)			
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.		
Biochemical oxygen demand (BOD)	0.6 - 1.12 g Q <sup>2</sup> /g substance		
Chemical oxygen demand (COD)	1.42 g O <sup>2</sup> /g substance		
ThOD	1.5 g O <sup>2</sup> /g substance		
BOD (% of ThOD)	0.40 - 0.73 % ThOD		
2-propanol (67-63-0)	<u>.</u>		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under		
reisistence and degradability	anaerobic conditions. No (test)data on mobility of the substance available.		
Biochemical oxygen demand (BOD)	1.19 g O <sup>2</sup> /g substance		
Chemical oxygen demand (COD)	2.23 g O <sup>2</sup> /g substance		
ThOD	2.40 g O <sup>2</sup> /g substance		
BOD (% of ThOD)	0.49 % ThOD		
ethylene glycol (107-21-1)			
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.		
Biochemical oxygen demand (BOD)	0.47 g O <sup>2</sup> /g substance		
	1.24 g O <sup>2</sup> /g substance		
Chemical oxygen demand (COD) ThOD	1.24 g O²/g substance       1.29 g O²/g substance		
Chemical oxygen demand (COD)			
Chemical oxygen demand (COD) ThOD BOD (% of ThOD)	1.29 g O <sup>2</sup> /g substance		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5)	1.29 g O²/g substance       0.36 % ThOD		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability	1.29 g O²/g substance         0.36 % ThOD         Not established.		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50%	1.29 g O²/g substance         0.36 % ThOD         Not established.         6,aqueous solution (2492-26-4)		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50% Persistence and degradability	1.29 g O²/g substance         0.36 % ThOD         Not established.		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50% Persistence and degradability 2-aminoethanol (141-43-5)	1.29 g O²/g substance         0.36 % ThOD         Not established.         6,aqueous solution (2492-26-4)         No (test)data on mobility of the components of the mixture available.		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50% Persistence and degradability 2-aminoethanol (141-43-5) Persistence and degradability	1.29 g O²/g substance         0.36 % ThOD         Not established.         6,aqueous solution (2492-26-4)         No (test)data on mobility of the components of the mixture available.         Readily biodegradable in water. Biodegradable in the soil.		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50% Persistence and degradability 2-aminoethanol (141-43-5) Persistence and degradability Biochemical oxygen demand (BOD)	1.29 g O²/g substance         0.36 % ThOD         Not established.         6,aqueous solution (2492-26-4)         No (test)data on mobility of the components of the mixture available.         Readily biodegradable in water. Biodegradable in the soil.         0.80 g O²/g substance		
Chemical oxygen demand (COD) ThOD BOD (% of ThOD) AQUA (7732-18-5) Persistence and degradability sodium-2(3H)-benzothiazolethione,conc=50% Persistence and degradability 2-aminoethanol (141-43-5) Persistence and degradability	1.29 g O²/g substance         0.36 % ThOD         Not established.         6,aqueous solution (2492-26-4)         No (test)data on mobility of the components of the mixture available.         Readily biodegradable in water. Biodegradable in the soil.		

2-aminoethanol (141-43-5)	
BOD (% of ThOD)	0.32 % ThOD
PROPRIETARY INHIBITOR PACKAGE (Pr	
Persistence and degradability	Not established.
I2.3. Bioaccumulative potential	
AUTOGUARD DE-ICER 12 OZ	
Bioaccumulative potential	Not established.
Petroleum gases, liquefied, sweetened (6	
Bioaccumulative potential	Not established.
Bloaccumulative potential	
methanol (67-56-1)	
BCF fish 1	< 10 (Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other, Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
2-propanol (67-63-0)	
Log Pow	0.05 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ethylene glycol (107-21-1)	
BCF fish 1	10 (72 h: Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp.; CHRONIC)
BCF other aquatic organisms 2	190 (24 h; Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
8	
AQUA (7732-18-5)	Also soluble a
Bioaccumulative potential	Not established.
sodium-2(3H)-benzothiazolethione,conc=	50%,aqueous solution (2492-26-4)
Log Pow	-0.46
Bioaccumulative potential	Bioaccumulation: not applicable.
2-aminoethanol (141-43-5)	
Log Pow	-1.91
Bioaccumulative potential	Bioaccumulation: not applicable.
PROPRIETARY INHIBITOR PACKAGE (Pr	
Bioaccumulative potential	Not established.
•	Not established.
12.4. Mobility in soil	
methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
2-propanol (67-63-0)	0.004 N/m (05.00)
Surface tension	0.021 N/m (25 °C)
ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20 °C)
2-aminoethanol (141-43-5)	
Surface tension	0.050 N/m
12.5. Other adverse effects	
Other information	: Avoid release to the environment.
SECTION 12: Disposal consideration	
SECTION 13: Disposal considerat	
I3.1. Waste treatment methods	
Naste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Container under pressure. Do not drill or burn even after use. Dispose of contents/container to
Additional information	: Flammable vapors may accumulate in the container. Handle empty containers with care because
	residual vapors are flammable.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

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## **SECTION 14: Transport information**

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA		
US DOT (ground):	UN1950, Aerosols, 2.1, Limited Quantity	
ICAO/IATA (air):	UN1950, Aerosols, 2, Limited Quantity	
IMO/IMDG (water):	UN1950, Aerosols, 2, Limited Quantity	
Special Provisions:	N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.	

14.2. UN proper shipping name			
DOT Proper Shipping Name	: Aerosols		
	flammable, (each not exceeding 1 L capacity)		
Department of Transportation (DOT) Hazard Classes	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115		
Hazard labels (DOT)	: 2.1 - Flammable gases		
DOT Special Provisions (49 CFR 172.102)	: N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.		
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306		
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None		
DOT Packaging Bulk (49 CFR 173.xxx)	: None		
14.3. Additional information			
Other information	: No supplementary information available.		
Overland transport No additional information available			
Transport by sea			
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a		
5	passenger vessel.		
DOT Vessel Stowage Other	: 48 - Stow "away from" sources of heat,87 - Stow "separated from" Class 1 (explosives) excep Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials		
Air transport			
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg		
DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75)			
SECTION 15: Regulatory information			
15.1. US Federal regulations			
AUTOGUARD DE-ICER 12 OZ			
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard		
	Fire hazard		
	Immediate (acute) health hazard		
methanol (67-56-1)			
Listed on SARA Section 302 (Specific toxic che			
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard		
2-propanol (67-63-0)			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard		
ethylene glycol (107-21-1)			
Listed on the United States TSCA (Toxic Substa	ances Control Act) inventory		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard		

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sodium-2(3H)-benzothiazolethione,conc=50%,aqueous solution (2492-26-4)				
Immediate (acute) health hazard Delayed (chronic) health hazard				
2-aminoethanol (141-43-5)				
Immediate (acute) health hazard				

#### 15.2. International regulations

CANADA

AUTOGUARD DE-ICER 12 OZ			
WHMIS Classification	Class B Division 5 - Flammable Aerosol Class D Division 2 Subdivision B - Toxic material causing other toxic effects		
methanol (67-56-1)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects		

#### **EU-Regulations**

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

### Classification according to Directive 67/548/EEC or 1999/45/EC Not classified

### 15.2.2. National regulations

No additional information available

### 15.3. US State regulations

No additional information available

ation of changes : R	evision - See : *.
r information : N	lone.
ext of H-phrases: see section 16:	
Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1A	skin corrosion/irritation Category 1A
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H222	Extremely flammable aerosol
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H300	Fatal if swallowed
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness

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H360 H370	May damage fertility or the unborn child Causes damage to organs
NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard
Physical	: 2 Moderate Hazard

SDS US (GHS HazCom 2012) - Technical Chemical

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product.