

Printed date: 08/22/2016 **Trade name: Otis Premium AntiFog #RW-426** Reviewed on: 08/22/2016

## 1 Identification

**Product Identifier:**

**Trade name:** **Otis Premium AntiFog #RW-426 (Government -40F Formula)**

- Relevant identified uses of the substance or mixture and uses advised against
- Product description: **AntiFog, Lens/Glass/Screen Treatment, Inert Active Ing. w/H2O and Ethanol (Grain) Alcohol Dispersant**
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
ParBur Laboratories, Inc.- Military and Scientific Engineering Division, HydroViterra  
Biotechnologies, LLC  
135 Lakeview Street  
Hollister, MO 65672  
Phone: +00 (1) 417-334-7176 Web: [www.parkersperfect.com](http://www.parkersperfect.com)
- Emergency telephone number: +00 (1) 417-334-7176

## 2 Hazard(s) Identification

- Classification of the substance or mixture



**GHS02 Flame**

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



**GHS07**

Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

- Label elements
- GHS label elements  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



**GHS02 GHS07**

- Signal word: **Danger**
- Hazard-determining components of labeling: **Ethanol alcohol**
- Hazard statements  
Highly flammable liquid and vapor. Causes serious eye irritation.  
May cause drowsiness or dizziness.
- Precautionary statements  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting/equipment.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves / eye protection / face protection.  
Wear eye protection / face protection.

# Safety Data Sheet (SDS)

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Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge .Wash thoroughly after handling.

**IF ON SKIN** (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

**IN CASE OF FIRE:** Use for extinction: CO2, powder or water spray.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Classification system:**



• **HMIS-ratings (scale 0 - 4)**



Health = 1 Fire = 3 Reactivity = 0  
Other hazards None known

• **NFPA ratings (scale 0 - 4)**



• **HMIS-ratings (scale 0 - 4)**

Health = 1 Fire = 3 Reactivity = 0



## 3 Composition/information on ingredients

• **Chemical characterization: Mixtures**

• **Description:** Mixture of substances listed below with nonhazardous additions.

• **Dangerous Components:**

CAS: 64-17-5 Ethanol Alcohol

RTECS: NT 8050000 **Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336**

65%-68%

## 4 First-aid Measures

• **Description of first aid measures**

• **After inhalation:**

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

• **After skin contact:**

Wash with soap and water.

If skin irritation continues, consult a doctor.

• **After eye contact:**

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

• **After swallowing:**

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Do not induce vomiting.

Never give anything by mouth to an unconscious person. Seek medical treatment.

· **Information for doctor:**

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

Central nervous system depression, prolonged or repeated exposure can cause nausea, headache, vomiting, narcosis and drowsiness. Over exposure may cause mild, reversible liver effects. · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. · Special hazards arising from the substance or mixture No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

· **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

· **Environmental precautions:**

## 6 Accidental release measures

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

· **Handling:**

## 7 Handling and Storage

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke. Protect from heat.

Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool, dry place away from sparks and flame.

· **Information about storage in one common storage facility:**

Do not store together with acids.

Store away from oxidizing agents.

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## 8 Exposure controls/personal protection

- **Further information about storage conditions:** Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight.
- **Specific end use(s)** Lens/glass/screen cleaner
- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
  - **Components with occupational exposure limits:**
- 64-17-5 Ethanol alcohol**
  - REL Long-term value: 980 mg/m<sup>3</sup>, 400 ppm
  - REL Short-term value: 1225 mg/m<sup>3</sup>, 500 ppm
  - Long-term value: 980 mg/m<sup>3</sup>, 400 ppm
  - TLV Short-term value: 984 mg/m<sup>3</sup>, 400 ppm
  - Long-term value: 492 mg/m<sup>3</sup>, 200 ppm BEI
- **Ingredients with biological limit values:**
- 64-17-5 Ethanol alcohol**
  - BEI
  - 40 mg/L urine
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- **Breathing equipment:**
  - Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors or used supplied air equipment.
- **Protection of hands: Protective gloves**



- **Material of gloves** Latex or nitrile
- **Penetration time of glove material**
  - The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
- **Eye protection:** Safety glasses or goggles

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties · General Information**
- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Violet
<b>Odor:</b>	Alcohol Like
<b>Odor threshold:</b>	Not determined.
<b>pH-value:</b>	8-9
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Not determined.
<b>Boiling point/Boiling range:</b>	90 degrees C (194 F)

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- **Flash point:** 25 degrees C ( 77 F) (Closed Cup)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 456 degrees C ( 853 F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self igniting
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - Lower: 2.0 Vol %
  - Upper: 12.0 Vol %
  - **Vapor pressure:** Not determined.
- **Density @ 20 °C (68 °F):** 0.94 g/cm<sup>3</sup> (7.844 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Solvent content:**
  - Organic solvents: 20.0 %
  - VOC content: 20.0 %
- **Other information** No further relevant information available
- **Reactivity** - No further relevant information available.

## 10 Stability and reactivity

- **Chemical stability** - Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** - No dangerous reactions known.
- **Conditions to avoid** - Heat, flame and ignition sources.
- **Incompatible materials:** Water-reactive materials, oxidizing agents
- **Hazardous decomposition products:** Carbon dioxide, carbon monoxide, hydrogen chloride
- **Information on toxicological effects**
- **Acute toxicity:**

## 11 Toxicological information

- **LD/LC50 values that are relevant for classification:**
- 64-17-5: Ethanol alcohol**

Oral	LD50	3450 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h`	30 mg/l (rat)
	LC50/96 hours	9640 mg/l (Pimephales)

- **Primary irritant effect:**
- **on the skin:** No irritating effect.

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- **on the eye:** Irritating effect.  
Causes serious eye irritation.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations: Irritant
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
  - Group 1 - Carcinogenic to humans
  - Group 2A - Probably carcinogenic to humans
  - Group 2B - Possibly carcinogenic to humans
  - Group 3 - Not classifiable as to its carcinogenicity to humans
  - Group 4 - Probably not carcinogenic to humans
  - 64-17-5 Ethanol alcohol
- **NTP (National Toxicology Program)**  
None of the ingredients are listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**  
None of the ingredients are listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**  
Fish: Fathead minnow: LC<sub>50</sub> 1000 ppm; 96 Hr Daphnia: LC<sub>50</sub> 1000 ppm; 96 Hr  
Fish: Golden orfe: LC<sub>50</sub> 8970-9280 ppm, 48 Hr
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:** No further relevant information available.
- **Bioaccumulative potential** - No further relevant information available.
- **Mobility in soil** - No further relevant information available.
- **Additional ecological information:** N/A
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Normally it is possible to empty small amounts into drains.
- **Uncleaned packagings:**
- **Recommendation:**  
Disposal must be made according to official regulations.  
Empty or nearly empty packaging does not constitute hazardous waste.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport Information

### UN-Number(s)

- |                           |        |
|---------------------------|--------|
| • DOT                     | UN1993 |
| • ADR, IMDG, IATA         | UN1170 |
| • UN proper shipping name | N/A    |

# Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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- DOT **Flammable liquids, n.o.s. (Ethanol) (Ethanol alcohol) UN1993**
- ADR · IMDG · IATA **UN1170 Ethanol (Ethanol alcohol) solution**
- 

**Transport hazard class(es)**

- DOT



- Class 3 Flammable liquids
- Label 3

- ADR



- Class 3 (F1) Flammable liquids 3
- Label 3

- IMDG, IATA



- Class 3 Flammable liquids
- Label 3
- Packing group
- DOT, ADR, IMDG, IATA III

**· Environmental hazards:**

- Marine pollutant: NO
- Special precautions for user Warning: Flammable liquids
- Danger code (Kemler): 33
- EMS Number: F-E, S-D

**· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**· Transport/Additional information:**

- DOT

- Quantity limitations

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

- ADR

Code: E2

- Excepted quantities (EQ)

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

- IMDG

- Limited quantities (LQ)

1L

- Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

- UN "Model Regulation":

UN1170 Ethanol (Ethanol alcohol) Solution, 3

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## 15 Regulatory Information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Proposition 65
- Section 355 (extremely hazardous substances):  
None of the ingredients are listed.
- Section 313 (Specific toxic chemical listings):  
All ingredients are listed.
- TSCA (Toxic Substances Control Act):  
All ingredients are listed.
- Proposition 65
- Chemicals known to cause cancer:  
None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for females:  
None of the ingredients are listed.
- Chemicals known to cause reproductive toxicity for males:  
None of the ingredients are listed.
- Chemicals known to cause developmental toxicity:  
None of the ingredients are listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency)  
None of the ingredients are listed.
- TLV (Threshold Limit Value established by ACGIH)  
64-17-5 Ethanol alcohol
- NIOSH-Ca (National Institute for Occupational Safety and Health)  
None of the ingredients are listed.
- GHS label elements  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



GHS02 GHS07

- Signal word: Danger
- Hazard-determining components of labeling:  
Ethanol alcohol
- Hazard statements  
Highly flammable liquid and vapor.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.
- Precautionary statements  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves / eye protection / face protection.  
Wear eye protection / face protection.  
Ground/bond container and receiving equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
**IF ON SKIN** (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/  
shower.

# Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

**In case of fire:** Use for extinction: CO<sub>2</sub>, powder or water spray.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

• **State Right to Know**

**CAS: 64-17-5 Ethanol Alcohol**

**49-68%**

**RTECS: NT 8050000 ⬠Flam. Liq. 2, H225; ⬠Eye Irrit. 2, H319; STOT SE 3, H336**

**All ingredients are listed.**

## 16 Other Information

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out, but the sole regulated ingredient, Ethyl (Grain) alcohol is widely consumed in beverage form. Hazards are as stated in this document. The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose. Where overlapping bodies of regulatory law are in contradiction, both references are shown as best known of printing date. Ethyl alcohol carries a number of transport exemptions for Air Carriage in concentrations up to 70%. This product is below that concentration and the exemptions apply as allowed by law. It is the responsibility of the shipper to comply with shipping laws and regulations of destination country.

• **Abbreviations and acronyms:**

ADR: Accord Européen sur le Transport des Marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

NIOSH: National Institute of Safety and Health (USA)

RTECS: Registry of Toxic Effects of Chemical Substances (USA-CDC)

VOC: Volatile Organic Compounds (USA, EU)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

• \* Data compared to the previous version altered.

**SDS created by ParBur Laboratories, Inc, Div. HydroViterra Biotechnologies, LLC.**

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