

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

**Product identifier**

**Product Name** **KC-199 ANTI-FOG**

**Other means of identification**

**Product Code** 20199

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Anti-fog lens cleaning solution

**Uses advised against** Follow the directions for use on the label when applying this product

**Details of the supplier of the safety data sheet**

**Manufacturer Address**

PSSI Chemical Innovations  
3729 Peddle Hollow Road  
Kieler, WI 53812

**Emergency telephone number**

**Company Phone Number** 888-671-5366  
**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**NOTE: Warnings below are for exposure to large quantities of the product. Intended use should not create a serious health hazard.**

Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 3

**Label elements**

**Emergency Overview**

**Warning**

**Hazard statements**

Causes serious eye irritation  
Flammable liquid and vapor



**Appearance** Aqueous solution      **Physical state** Liquid      **Odor** Slightly alcoholic

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Keep away from heat/sparks/open flames/hot surfaces. No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Use explosion-proof electrical/ventilating/lighting/equipment

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
In case of fire: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%
Water	7732-18-5	82-90
Isopropyl alcohol	67-63-0	11-14
Trade Secret	Proprietary	1-2
Ethyl alcohol	64-17-5	< 0.15

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**First aid measures**

**Eye contact** Hold eye 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. If eye irritation persists: Get medical advice/attention.

**Skin contact** Get medical attention if irritation develops and persists. Wash contaminated clothing and shoes before reuse. Rinse skin with water.

**Inhalation** Remove to fresh air. None under normal use conditions.

**Ingestion** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a doctor if you feel unwell.

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

**Symptoms** See Section 11 for symptom information.

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

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Dry chemical. Water spray (fog). Carbon dioxide (CO2). Foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Flammable. This product will release vapors when heated above the flash point temperature and can ignite when exposed to a source of ignition.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** Refer to "Specific hazards arising from the chemical" in this section.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

**For emergency responders** Isolate area. Keep unnecessary personnel away.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. See section 12 for additional ecological information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

**Methods for cleaning up** Soak up with inert absorbent material. Collect spillage. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water. Refer to Section 7 "Advice on safe handling".

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** This product will release vapors when heated above the flash point temperature and can ignite when exposed to a source of ignition. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

**Incompatible materials** Heat, sparks, open flame, other ignition sources. Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**  
**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>
Ethyl alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Showers, eyewash stations, ventilation system.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Safety glasses when the possibility of splashing exists.  
**Skin and body protection** For spills or prolonged and frequent use of this product rubber gloves are recommended.  
**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Do not eat, drink or smoke when using this product. Wash contaminated clothing and shoes before reuse. Avoid prolonged or repeated contact with skin.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Slightly alcoholic
<b>Appearance</b>	Aqueous solution	<b>Odor threshold</b>	No information available
<b>Color</b>	Clear, Colorless	<b>Remarks • Method</b>	
<b>Property</b>	<b>Values</b>		
<b>pH</b>	7.5		±1 @ 21°C
<b>Melting point / freezing point</b>	-3 °C / 26.6 °F		
<b>Boiling point / boiling range</b>	No information available		
<b>Flash point</b>	36 °C / 96.8 °F		
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	No information available		
<b>Lower flammability limit:</b>	No information available		
<b>Vapor pressure</b>	No information available		
<b>Vapor density</b>	No information available		
<b>Specific Gravity</b>	0.98 g/cc		
<b>Water solubility</b>	Soluble in water		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Kinematic viscosity</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		
<b>VOC Content (%)</b>	10.15% (0.829 lbs/gal)		

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

None known.

**Incompatible materials**

Heat, sparks, open flame, other ignition sources. Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

**Inhalation** Not an expected route of exposure.  
**Eye contact** Direct eye contact causes eye irritation and redness of eye tissues.  
**Skin Contact** Repeated exposure may cause skin dryness or cracking.  
**Ingestion** May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Isopropyl alcohol 67-63-0	= 1870 mg/kg ( Rat )	= 4059 mg/kg ( Rabbit )	= 72600 mg/m <sup>3</sup> ( Rat ) 4 h
Trade Secret	= 1900 mg/kg ( Rat )	= 10000 mg/kg ( Rabbit )	-
Ethyl alcohol 64-17-5	= 7060 mg/kg ( Rat )	-	= 124.7 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms** No information available.  
**Delayed and immediate effects as well as chronic effects from short and long-term exposure**  
**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol 67-63-0	-	Group 3	-	X
Ethyl alcohol 64-17-5	A3	-	Known	X

**ACGIH (American Conference of Governmental Industrial Hygienists)**  
 A3 - Animal Carcinogen  
**IARC (International Agency for Research on Cancer)**  
 Group 3 - "not classifiable as human carcinogens"  
**NTP (National Toxicology Program)**  
 Known - Known Carcinogen  
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**  
 X - Present

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 13.9 % of the mixture consists of ingredient(s) of unknown toxicity  
**The following values are calculated based on chapter 3.1 of the GHS document**  
**Oral LD50** 13,475.00 mg/kg  
**Dermal LD50** 31,060.00 mg/kg  
**Mist** 580.80 mg/l

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Isopropyl alcohol 67-63-0	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	1400000: 96 h Lepomis macrochirus µg/L LC50 9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static	13299: 48 h Daphnia magna mg/L EC50
Trade Secret	-	20 - 40: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 24: 96 h Oncorhynchus mykiss mg/L LC50 static 37: 96 h Lepomis macrochirus mg/L LC50 static	36: 48 h Daphnia magna mg/L EC50
Ethyl alcohol 64-17-5	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static 10800: 24 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

Chemical Name	Partition coefficient
Isopropyl alcohol - 67-63-0	0.05
Ethyl alcohol - 64-17-5	-0.32

**Mobility**

Soluble in water.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Dispose of in accordance with federal, state and local regulations.

Chemical Name	California Hazardous Waste Status	
Isopropyl alcohol - 67-63-0	Toxic	Ignitable
Ethyl alcohol - 64-17-5	Toxic	Ignitable

**14. TRANSPORT INFORMATION**

**Note:**

Limited quantity (LQ). This flammable material is exempt from labeling and placarding requirements so long as the material is not offered for transport by aircraft as per 49 CFR §173.150 and when the product meets the packaging requirements of 49 CFR §173.150 (b)(3) [inner packaging not over 5.0 L (1.3 gallons) net capacity each for liquid]. Each limited quantity package of this product may not exceed 30 kilograms (66 pounds) gross weight.

**DOT**

<b>UN/ID No.</b>	1993
<b>Proper shipping name</b>	Flammable liquids, n.o.s. (contains isopropanol)
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Emergency Response Guide Number</b>	128

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**Note:** Isopropyl alcohol only needs to be reported if it is being manufactured by the strong acid process. Facilities that process or otherwise use isopropyl alcohol are **NOT** covered and should **NOT** file a report.

Chemical Name	SARA 313 - Threshold Values %
Isopropyl alcohol - 67-63-0	1.0

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	Yes
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage

Chemical Name	California Proposition 65
Ethyl alcohol - 64-17-5	Carcinogen Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isopropyl alcohol - 67-63-0	X	X	X
Ethyl alcohol - 64-17-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

<u>NFPA</u>	Health hazards 1	Flammability 3	Instability 0	Physical and Chemical Properties None
<u>HMIS</u>	Health hazards 1	Flammability 3	Physical hazards 0	Personal protection None

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**Revision Note**

Reformulation of product

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

**End of Safety Data Sheet**