

Safety Data Sheet

Issue Date: 27-Jul-2022

Revision Date: 27-Jul-2022

Version 1

1. IDENTIFICATION

Product identifier

Product Name Ultra IR

Other means of identification

SDS # UO-016

UN/ID No UN1993

Recommended use of the chemical and restrictions on use

Recommended Use Removal of Ink from Ophthalmic lens.

Details of the supplier of the safety data sheet

Manufacturer Address

Ultra Optics Company
9200 Wyoming Avenue N.
Suite 360
Brooklyn Park, MN 55455

Emergency telephone number

Company Phone Number 1-800-365-9993
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Colorless liquid

Physical state Liquid

Odor Citrus

Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Signal Word

Danger

Hazard statements

Causes serious eye irritation
May cause an allergic skin reaction
Highly flammable liquid and vapor



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing must not be allowed out of the workplace
 Use only outdoors or in a well-ventilated area
 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 equipment
 Keep cool

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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a poison center or doctor/physician if you feel unwell
 In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Ethanol	64-17-5	60-70
Proprietary Ketone	Proprietary	15-25

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

- General Advice** Provide this SDS to medical personnel for treatment.
- Eye Contact** 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.
- Skin Contact** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Ingestion	Do NOT induce vomiting. Do NOT give liquids. Seek medical attention. Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes serious eye irritation. May cause an allergic skin reaction.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Carbon dioxide (CO₂). Dry chemical. Foam. Water spray (fog). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors/dust may form explosive mixture with air. Vapors can travel to a source of ignition and flash back. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning. Closed container may explode under extreme heat.

Hazardous combustion products Smoke, fumes or vapors, and oxides of carbon.

Explosion Data

Sensitivity to Mechanical Impact Do not subject to grinding/shock/friction.

Sensitivity to Static Discharge Take precautionary measures against static discharge.

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.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not walk through spilled material. Stay upwind and away from spill.
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Environmental precautions

Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in a suitable container. Recover by pumping (use an explosion proof or hand pump). Use clean, non-sparking tools to collect absorbed materials.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. 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 discharges. Use explosion proof equipment. Keep cool.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Incompatible Materials

Acids. Strong oxidizing agents. Caustics. Alkalis. Halogens. Amines. Aldehydes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Proprietary Ketone	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m ³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m ³	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³

Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Chemical splash goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection

Wear impervious gloves to prevent contact with the skin. Wear protective gear as needed (apron, suit, boots). Long sleeved clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Citrus
Appearance	Colorless liquid	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	37-176 °C / 100-349 °F	
Flash point	12.7 °C / 55 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Relative Density	Not determined	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Heat, flames and sparks. Static discharge. Incompatible Materials.

Incompatible materials

Acids. Strong oxidizing agents. Caustics. Alkalis. Halogens. Amines. Aldehydes.

Hazardous decomposition products

Toxic gases/vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

- Eye Contact** Avoid contact with eyes.
- Skin Contact** Avoid contact with skin.
- Inhalation** Do not inhale.
- Ingestion** May be harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Proprietary Ketone	= 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
Proprietary Oil	= 4400 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Serious eye damage/eye irritation** Causes serious eye irritation.
- Sensitization** May cause an allergic skin reaction.
- Carcinogenicity** Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethanol 64-17-5	A3	Group 1	Known	X

Legend

- ACGIH (American Conference of Governmental Industrial Hygienists)*
- A3 - Animal Carcinogen*
- IARC (International Agency for Research on Cancer)*
- Group 1 - Carcinogenic to Humans*
- NTP (National Toxicology Program)*
- Known - Known Carcinogen*
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)*
- X - Present*

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

- Oral LD50** 4,756.70 mg/kg
- Dermal LD50** 18,479.10 mg/kg
- ATEmix (inhalation-dust/mist)** 171.00 mg/L
- ATEmix (inhalation-vapor)** 133.30 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ethanol 64-17-5		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static
Proprietary Ketone		3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through	520: 48 h Daphnia magna mg/L EC50 5091: 48 h Daphnia magna mg/L EC50 4025 - 6440: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Ethanol 64-17-5	-0.32
Proprietary Ketone	0.3

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

For more guidance and information contact our Waste Services Division at (262) 658-4000. Always dispose of any waste in accordance with all local, state, and federal regulations.

Contaminated Packaging

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

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Proprietary Ketone	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159

Chemical name	California Hazardous Waste Status
Ethanol 64-17-5	Toxic Ignitable
Proprietary Ketone	Toxic mixture of acetone, methyl acetate, and methyl alcohol Ignitable mixture of acetone, methyl acetate, and methyl alcohol

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1993
Proper Shipping Name Flammable liquid n.o.s. (Ethanol, 2-Butanone)
Hazard class 3
Packing Group II

IATA

UN number UN1993
Proper Shipping Name Flammable liquid n.o.s. (Ethanol, 2-Butanone)
Transport hazard class(es) 3
Packing Group II

IMDG

UN number UN1993
Proper Shipping Name Flammable liquid n.o.s. (Ethanol, 2-Butanone)
Transport hazard class(es) 3
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethanol	X	ACTIVE	X	X	X	X	X	X	X
Proprietary Ketone	X	ACTIVE	X	X	X	X	X	X	X
Proprietary Oil	X	ACTIVE	X			X	X	X	X

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
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

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).

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Proprietary Ketone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

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

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)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethanol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethanol 64-17-5	X	X	X
Proprietary Ketone	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards Not determined	Flammability Not determined	Physical hazards Not determined	Personal Protection Not determined

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 Revision Note: New format

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 information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet