SAFETY DATA SHEET **GHS** Classification in accordance with 29 CFR 1910 (OSHA HCS) < June 01, 2017> USA

1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers:

Product Name: **OptiSafe Marking Ink Remover**
Product Code: C573, C575, C576, C578, C579, C580, C586, C587

1.2 Relevant identified uses of the Substance or mixture:
Identified uses: Marking Ink Remover for eyeglass lenses (not for contact lenses).
Mixture of flammable solvents. Unprofessional use is not recommended.

1.3 Details of the Supplier of the Safety Data Sheet:
Suppliers: Phantom Research Laboratories, Inc.
Address: 1957 Friendship Drive, Suite D., El Cajon, CA 92020 - USA
Telephone: +1-619-449-7754
Fax: +1-619-449-7711
Email: info@phantomresearch.com Contact Name: Terry Chika, tc@phantomresearch.com
Website: www.phantomresearch.com

1.4 Emergency telephone
Emergency Phone Number: +1-619-750-5023
Association/Organization: Phantom Research Labs., Inc.
Other Emergency Telephone Numbers: N/A

2 – HAZARDS INDENTIFICATION

2.1 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Flam. Liq. 2	H225	Flammable liquid and vapor.
Eye Irrit. 2	H319	Eye irritation.
STOT 3	H336	May cause drowsiness or dizziness.

2.2 GHS Label elements

Hazard Pictogram:

Signal Word: Danger

Hazardous Statements:
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary Statements:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.

P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	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.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Others hazards
None

3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
3.2 Mixture
Mixture of the Following Substances:

Substance name	CAS No. .	Content %	Classification in accordance with 29 CFR 1910 (OSHA HCS)
Ethanol	64-17-5	<50	H225
2-Propanol	67-63-0	>50	H225, H319, H336

Other substances with occupational exposure limits: none

4 – FIRST AID MEASURES

4.1 Description of first aid measures
As a general rule, in case of doubt or if symptoms persist - Always call a doctor. NEVER induce swallowing in an unconscious person.
In the event of Exposure by Inhalation: Move to fresh air.
In the event of Splashes or Contact with Eyes: Flush exposed area well for at least 15 minutes. If irritation persists, seek medical advice.
In the event of Splashes or Contact with Skin: Flush exposed area well with soap and water. If irritation persists, seek medical advice.
In the event of Swallowing: Do not induce vomiting, do not drink. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
No additional information available

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5 – FIRE FIGHTING MEASURES

5.1 Extinguishing media
Water spray, carbon dioxide, dry chemical, alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
May decompose to produce carbon oxides.

5.3 Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for firefighters.

6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors. Work in well ventilated area. Remove all sources of ignition. Consult the safety measures listed under Sections 7 and 8.

6.2 Environmental precautions
Keep away from drain-surface and ground water. Dispose of waste recovered in accordance with applicable regulations (See Section 13).

6.3 Methods and material for containment and cleaning up
Sweep up spills into waste container. Soak up all with inert absorbent material. Place in a closed container for proper waste disposal (see section 13) followed by washing with soap and plenty of water.

6.4 Reference to other sections
See section 7,8, and 13.

7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
Wear protective gloves / protective clothing/ eye protection / face protection. Use in well ventilated area. Local exhaust ventilation is recommended. Mechanical ventilation is acceptable. Avoid, inhalation of vapor or mist, contact with skin, and eye. Avoid ignition sources. Use only as instructed.

7.2 Conditions for safe storage, including any incompatibilities
Store at room temperature. Keep container sealed when not use.

7.3 Specific use(s)
Refer to section 1.2. Refer to the instructions on the label of the container.

8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Exposure Limit Values:

Component	CAS-No.	Value	Control parameters	Basis

2-Propanol	67-63-0	TWA	200.000000 ppm 490 mg/m^3	USA. ACGIH Threshold Limit Values (TLV)
Ethanol	l 64-17-5	TWA	1,000 ppm 2450 mg/m^3	USA. ACGIH Threshold Limit Values (TLV)

8.2 Exposure control
Hand Protection: Wear protective gloves.
Types of Gloves Recommended: Latex or Nitrile.
Eye and Face Protection: Wear safety glasses.
Skin Protection: Wear body-covering clothing.
Respiratory Protection: Not required in well ventilated area. Local exhaust ventilation is recommended. Mechanical is acceptable.

9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:	Clear liquid
b) Odor:	Alcohol-like odor
c) Odor Threshold:	No data available
d) pH:	Undetermined
e) Melting Point/ Freezing Point	Undetermined
Melting Point/Range:	Undetermined
f) Initial Boiling Point & Boiling Range:	Undetermined
g) Flash Point:	Undetermined
h) Evaporation Rate:	No data available
i) Flammability (solid, gas):	Flammable
j) Upper/lower flammability or explosive limits	
Upper Explosion Limit:	No data available
Lower Explosion Limit:	No data available
k) Vapor Pressure:	No data available
l) Vapor Density:	No data available
m) Relative Density:	No data available
n) Water Solubility:	Soluble
o) Partition Coefficient: n-octanol/water:	No data available
p) Auto-ignition Temperature:	No data available
q) Decomposition Temperature:	No data available
r) Viscosity:	No data available
s) Explosive Properties:	No data available
t) Oxidizing Properties:	No data available

9.2 Other Information
Not available

10 – STABILITY AND REACTIVITY

The preparation is stable at the handling and storage conditions recommended per Section 7 of the safety data sheet.
10.1 Reactivity
The product has no known dangerous reactions.

10.2 Chemical stability
Stable under normal operating conditions.

10.3 Possibility of hazardous reactions
Vapors may form explosive mixture with air.

10.4 Conditions to avoid
Heat, flames, and sparks.

10.5 Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.

10.6 Hazardous decomposition products
May produce oxides of carbon.

11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity: LD50 Oral, Rat: >5000 mg/Kg, Rat, 2-propanol, no data available on toxicity as a mixture.
Acute Inhalation Toxicity: LC50 Inhalation, Rat: 8h, 16000 ppm, 2-propanol, no date as a mixture.
Acute Dermal Toxicity: LD50 Dermal: No data available
Route of Exposure: Inhalation, ingestion, skin, eye contact
Health Hazard Acute and Chronic: No data available
Skin Corrosion/Irritation: May cause skin irritation
Serious eye Damage/Eye Irritation: May cause serious eye irritation
Respiratory or Skin Sensitization: No data available
Germ Cell Mutagenicity: No data available
Carcinogenicity: Carcinogenicity in humans is not expected.
Reproductive toxicity: No data available
Specific Target Organ Toxicity - Single Exposure: Inhalation, oral – may cause drowsiness or dizziness
Specific Target Organ Toxicity - Repeated Exposure: no data available
Aspiration Hazard: No data available

12 – ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic Toxicity and Eco Toxicity:
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
None

13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of in accordance with all applicable local and national regulations.

Packaging Disposal: Dispose of in accordance with all applicable local and national regulations.

14 – TRANSPORT INFORMATION

US DOT:
- UN Number: UN1993
- UN Proper Shipping Name: Flammable liquids, n.o.s., (Ethanol, 2-Propanol)
- Transport Hazard Class(es): 3
- Packaging Group: II
- Special Precautions for Use: Not applicable
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Land Transport ADR/RID:
- UN Number: UN1993
- UN Proper Shipping Name: Flammable liquids, n.o.s., (Ethanol, 2-Propanol)
- Transport Hazard Class(es): 3
- Packaging Group: II
- Special Precautions for Use: Not determined
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Sea Transport (IMDG Code):
- UN Number: UN1993
- UN Proper Shipping Name: Flammable liquids, n.o.s., (Ethanol, 2-Propanol)
- Transport Hazard Class(es): 3
- Packaging Group: II
- Special Precautions for Use: Not applicable
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Air Transport (IATA/ ICAO):
- UN Number: UN1993
- UN Proper Shipping Name: Flammable liquids, n.o.s., (Ethanol, 2-Propanol)
- Transport Hazard Class(es): 3
- Packaging Group: II
- Special Precautions for Use: Not applicable
- Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15 – REGULATORY INFORMATION

This safety data sheet complies with the GHS Classification in accordance with 29 CFR 1910 (OSHA HCS).

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
No data available

16 – OTHER INFORMATION

Since the user working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information given on this safety data sheet must be regarded as a description of the safety requirements in relation to our product and not a guarantee of its properties.

Abbreviations and acronyms
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
PBT - Persistent Bioaccumulative and Toxic
CAS - Chemical Abstracts Service
CFR – Code of Federal Regulations
DOT - Department of Transportation
GHS – Global Harmonized System
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration, 50%
LD50 - Median Lethal Dose
OSHA HCS - Occupational Safety and Health Administration Hazard Communication standard (USA)
PBT - Persistent Bioaccumulative and Toxic substance
SDS - Safety Data Sheet
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative