

<u>Prevention:</u>	P210 – Keep away heat, sparks, open flames, and hot surfaces. No smoking. P261 – Avoid breathing dust/fume/gas/mist/vapors/spray. P272 – Contaminated clothing should not be allowed out of the workplace.
<u>Response:</u>	P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P331 + P310 – IF SWALLOWED: Do NOT induce vomiting. Immediately call POISON CENTER or doctor/physician. P337 + P313–If eye irritation persists: Get medical advice/attention. P332 + P313 – If skin irritation or rash occurs: Get medical advice/attention.
<u>Disposal:</u>	P501- Dispose of contents/container to an approved waste disposal plant.
<u>Other Hazards:</u>	Toxic to aquatic life with long lasting effects.
<u>Unknown Acute Toxicity:</u>	2% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Isopropyl alcohol	67-63-0	<8.0
2 butoxyethanol	111-76-2	<5.0

Section 4. FIRST AID MEASURES

First Aid Measures:

Eye Contact	Rinse thoroughly with plenty of water, for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
Skin Contact	If skin irritation occurs, rinse affected area with water. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Remove to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Ingestion Do NOT induce vomiting Get medical attention immediately. Rinse mouth with water. Never give anything by mouth to an unconscious individual.

Most Important Symptoms and effects:

Symptoms Direct contact with eyes may cause temporary irritation.
Do NOT ingest.

Section 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use foam, dry chemical, carbon dioxide or water fog.

Unsuitable Extinguishing Media: Not determined.

Specific Hazards Arising from the Chemical:

Carbon oxides expected to be the primary hazardous combustion product.

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus and other protective clothing. (approved or equivalent) and full protective gear.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Personal Precautions: Use personal protective equipment as required. Keep unnecessary personnel away.

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: Keep in suitable, closed containers for disposal.

Section 7. HANDLING AND STORAGE

Precautions for Safe Handling:

Advice on Safe Handling: Avoid breathing vapors or mists. Contaminated work-clothing should not be allowed out of the workplace

Conditions for Safe Storage, including
Any Incompatibilities:

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.
Do not store near heat, sparks, or open flames.
KEEP OUT OF REACH OF CHILDREN.

Incompatible Materials: None known based on information supplied.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Chemical Name	ACGIH TWA	ACGIH STEL	OSHA TWA
Isopropyl alcohol (CAS 67-63-0)	200 ppm	400 ppm	400 ppm
2 butoxyethanol (CAS 111-76-2)	20 ppm	200 mg/g	x

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: Avoid contact with eyes.

Skin and Body Protection: No protective equipment is needed under normal use conditions.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas. If confined in poorly ventilated areas use NIOSH/MSHA

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Wash exposed areas thoroughly before eating, drinking, smoking or leaving work area. Launder contaminated clothing before reusing.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State: Liquid. Odor: Mild alcoholic.

Appearance: Viscous liquid. Odor Threshold: Not available.
 Color: Blue green.

<u>Property</u>	<u>Values</u>
pH	N/A
Melting Point/Freezing Point	Not determined.
Boiling Point/Boiling Range	Not determined.
Flash Point	98F (37C) Closed Cup.
Evaporation Rate	Not determined.
Flammability (Solid, Gas)	n/a-liquid
Upper Flammability Limit	Not determined.
Lower Flammability Limit	Not determined.
Vapor Pressure	Not determined.
Vapor Density	Not determined.
Specific Gravity	1.44
Water Solubility	None.
Solubility in other Solvents	Not determined.
Partition Coefficient (n-octanol/water)	Not determined.
Auto-ignition Temperature	Not determined.
Decomposition Temperature	Not determined.
Kinematic Viscosity	Not determined.
Explosive Properties	Not determined.
Oxidizing Properties	Not determined.
V.O.C.	205g/L

Section 10. STABILITY AND REACTIVITY

<u>Reactivity:</u>	Not reactive under normal conditions.
<u>Chemical Stability:</u>	Stable under recommended storage conditions.
<u>Possibility of Hazardous Reactions:</u>	None under normal processing.
<u>Conditions to Avoid:</u>	Keep out of reach of children.
<u>Incompatible Materials:</u>	None known.
<u>Hazardous Decomposition Products:</u>	Oxides of carbon.

Section 11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure:

Eye Contact: Causes serious eye irritation.

Skin Contact: May cause an allergic skin reaction.

Inhalation: Avoid breathing vapors or mists.

Ingestion: Do not taste or swallow.

Component Information:

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl alcohol (67-63-0)	4,396 mg/kg (Rat) 3,600 mg/kg (Mouse)	12,870 mg/kg (Rabbit)	19,600 ppm (Rat)
2 butoxyethanol (111-76-2)	1,300mg/g (Rat) 1,400 mg/g (Guinea Pig)	>2,000 mg/g (Rat) >2,000 mg/g (Guinea Pig)	>4.9 mg/L (Rat 3 h) >3.4 mg/L (Guinea Pig 1h)

Information on physical, chemical and toxicological effects:

Symptoms: Please section 4 of this SDS for symptoms.

Delayed and Immediate Effects as Well as Chronic Effects From Short and Long Term Exposure:

Sensitization: May cause an allergic skin reaction.

Carcinogenicity: Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol (67-63-0)	NO	NO	NO	NO
2 butoxyethanol (111-76-2)	NO	NO	NO	NO

Legend

IARC (International Agency for Research on Cancer).

Group3 IARC components are "not classifiable as human carcinogens".

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical Measures of Toxicity:

Not Determined.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxic to aquatic life with lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Isopropyl alcohol (67-63-0)	EC50/72 hours Scenedesmus subspicatus >1,000 mg/L	LC50/96 hours Pimephales promelas: 9,640 mg/L	EC50/3 hours Activated sludge >1,000 mg/L	N/A
2 butoxyethanol (111-76-2)	EC50 Algae (Pseudokircheriella subcapitata, 72h) 1,840 mg/L	LC50/96 hours Oncorhynchus mykiss, 1,474 mg/L		

Persistence/Degradability: Not determined.

Bioaccumulation: Not determined.

Mobility: Not determined.

Other Adverse Effects: Not determined.

Section 13. DISPOSAL CONSIDERATIONS

Waste Treatment Method:

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

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

Section 14. TRANSPORT INFORM

IN ACCORDANCE WITH DOT:

UN-NUMBER UN 1993

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, n.o.s. (isopropanol)

HAZARD CLASS CLASS 3 – Flammable and combustible liquid

PACKING GROUP III

IATA: ID8000 Consumer Commodity, Hazard Class 9.

Section 15. REGULATORY INFORMATION

International Inventories: Not determined.

U.S. Federal Regulations: Not determined.

SARA Title 313: Not determined.

U.S. State Regulations:

U.S Right-to-Know Regulations: Not determined.

Section 16. OTHER INFORMATION

NFPA:	Health Hazards 1	Flammability 2	Instability 0	Special Hazards Not determined
HMIS	Health Hazards 1	Flammability 2	Instability 0	Special Hazards Not determined

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End of Safety Data Sheet