



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	TECH SPEC LENS CLEANER
Product number	850771
Company information	Brulin & Company, Inc. P.O. Box 270 Indianapolis, IN 46206 US www.Brulin.com
Emergency	CHEMTREC 1-800-424-9300
General information	Phone: 317-923-3211 Fax: 317-925-4596

2. Hazards Identification

Emergency overview	Vapors may cause drowsiness and dizziness.
Potential health effects	
Eyes	Can cause severe eye irritation.
Skin	Prolonged and/or repeated skin contact may result in mild irritation or redness. Components of the product may be absorbed into the body through the skin.
Inhalation	Health injuries are not known or expected under normal use. Prolonged or excessive inhalation may cause respiratory tract irritation.
Ingestion	Health injuries are not known or expected under normal use. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Isopropyl alcohol	67-63-0	< 10
2-Butoxyethanol	111-76-2	< 2.5
Non-hazardous and other components below reportable levels		> 80

4. First Aid Measures

First aid procedures	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact	Wash with soap and water. Launder contaminated clothing before reuse. Get medical attention if irritation develops or persists.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
Ingestion	Do not induce vomiting without medical advice. If conscious, drink plenty of water. If ingestion of a large amount does occur, seek medical attention.
General advice	If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties	Flammable Liquid.
Extinguishing media	
Suitable extinguishing media	Small Fires: Dry chemical, CO ₂ , water spray or regular foam. Large Fires: Water spray, fog or regular foam.

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6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Remove all sources of ignition.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Never return spills in original containers for re-use. Large Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling	Do not breathe gas/fumes/vapor/spray. Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges.
Storage	Keep at temperatures between 4 and 50°C. Keep in a well-ventilated place. Keep out of the reach of children. Keep container tightly closed.

8. Exposure Controls / Personal Protection

Engineering controls	Use general ventilation.
Personal protective equipment	
Eye / face protection	Safety glasses. or Goggles.
Skin protection	Impervious butyl rubber gloves.
Respiratory protection	No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	blue
Odor	alcohol
Odor threshold	Not available.
Form	Liquid.
pH	7 - 8
Freezing point	< 30 °F (< -1.1 °C)
Boiling point	192 °F (88.9 °C)
Flash point	98 °F (36.7 °C) Tag Closed Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor density	Not available.
Specific gravity	0.982
Solubility (water)	100 %
VOC	11.15 % w/w

10. Chemical Stability & Reactivity Information

Chemical stability	Stable.
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Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Acute effects	Acute LD50: 18661 mg/kg, Rat, Oral Acute LD50: 13321 mg/kg, Rat, Dermal Acute LC50: 124 mg/l/4h, Rat, Inhalation
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Carcinogenicity

IARC Monographs on Occupational Exposures to Chemical Agents: Overall evaluation

2-Butoxyethanol (111-76-2) 3 Classification not possible from current data.

US ACGIH Threshold Limit Values: A3 carcinogen

2-Butoxyethanol (111-76-2) Group A3 Confirmed animal carcinogen with unknown relevance to humans.

US ACGIH Threshold Limit Values: A4 carcinogen

Isopropyl alcohol (67-63-0) Group A4 Not classifiable as a human carcinogen.

Further information	Symptoms may be delayed.
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12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns. This material is not expected to be harmful to aquatic life.
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13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 F
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Disposal instructions	Consult authorities before disposal. Dispose in accordance with all applicable regulations. If discarded, this product is considered a RCRA ignitable waste, D001. Incinerate the material under controlled conditions in an approved incinerator. Dispose of this material and its container at hazardous or special waste collection point.
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14. Transport Information

DOT

Basic shipping requirements:

Proper shipping name	Flammable Liquid, NOS (Isopropyl alcohol)
Hazard class	3
UN number	UN1993
Packing group	III

Additional information:

Special provisions	B1, B52, IB3, T4, TP1, TP29
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242
ERG number	128

DOT Requirements NON-BULK

Basic shipping requirements:

Proper shipping name	Consumer Commodity, ORM-D (Isopropyl alcohol)
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IATA

Basic shipping requirements:

Proper shipping name	Flammable Liquid, NOS (Isopropyl alcohol)
Hazard class	3
UN number	1993
Packing group	III

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Additional information:

Packaging instructions cargo only	310
Maximum net quantity packaging	60 L
Maximum net quantity packaging cargo only	220 L
ERG code	3L

IMDG

Basic shipping requirements:

Proper shipping name	Flammable Liquid, NOS (Isopropyl alcohol)
Hazard class	3
UN number	UN1993
Packing group	III

Additional information:

Packaging exceptions	150
Labels required	3



DOT



IATA



IMDG

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA (Superfund) reportable quantity

2-Butoxyethanol: 1.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-Butoxyethanol (111-76-2)	Listed.
Isopropyl alcohol (67-63-0)	Listed.

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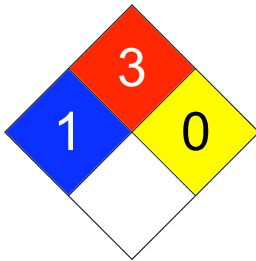
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16. Other Information

HMIS rating

Health	* 1
Flammability	3
Physical Hazard	0
Personal Protection	B

NFPA codes



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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

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