



1) Product Identification

Product Name: Liquik 77H

Product Code: i03038

Recommended Use: A one shot liquid laundry detergent containing low levels of alkalinity, a blend of high foaming surfactants, non-toxic solvents, enzymes, and optical brighteners.

Producer: Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027

Contact Information: (303) 289-1090 or 1-800-525-0476

Emergency Number: CHEMTREC 1-800-424-9300

2) Hazard(s) Identification

Health	Environmental	Physical
Acute Toxicity Cat. 4 (oral) Skin Corrosion Cat. 2 Eye Effects Cat. 2A	Aquatic Toxicity Acute Cat. 3	

Labeling:**Symbol:**

Signal Word: Warning
Irritant, Aquatic Toxicity

Hazard Statement(s): This product may cause irreversible eye damage, and may be harmful or fatal if swallowed. Do not get into eyes or on clothing. In case of contact immediately flush with water for at least 15 minutes.

Precautionary Statement(s): Use rubber gloves, protective splash-proof goggles, and protective clothing. Remove contaminated clothing and wash before re-use. Do not contaminate food, feed, or water. Keep container closed when not in use.

3) Composition/ Information on Ingredients

Name(s)	Synonym(s)	CAS Number	Weight %
Ethoxylated alcohols (C9-11)	Alcohols, ethoxylated	68439-46-3	< 15%
MEA	Monoethanolamine	141-43-5	< 10%
Ethanol	Ethyl alcohol	64-17-5	< 10%

4) First-Aid Measures

Inhalation	Skin Contact	Eye Contact	Ingestion
Remove from exposure. Administer oxygen if breathing is difficult. Resuscitate if necessary. Get medical help immediately	Promptly rinse exposed areas with water. Do not wear contaminated clothing until it has been laundered. If irritation persists, consult a physician.	Immediately rinse eyes thoroughly in cool running water for at least 15 minutes. If irritation persists, or inflammation or swelling occurs, seek medical attention.	DO NOT induce vomiting. Have a conscious victim drink milk or water to dilute. Never give an unconscious person anything by mouth. Get medical help immediately.

5) Firefighting Measures

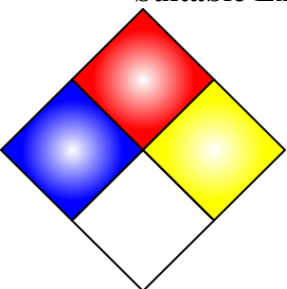
Suitable Extinguishing Media: Water, Carbon Dioxide, Dry Chemical, and Foam Blanket

Unsuitable Extinguishing Media: N/A

Flash Point: >200°F TCC

Specific Hazards: Always wear self-contained breathing apparatus when fighting a chemical fire.

Special Protective Actions for Fire-Fighters: Carbon Monoxide/Carbon Dioxide gases liberated during combustion.



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6) Accidental Release Measures

Personal Precautions: Be sure to use all necessary Personal Protective Equipment

Environmental Precautions: Avoid contamination of food, feed, waterway, or groundwater.

Methods and Materials for Containment and Clean-Up: Capture material and contain for re-use or disposal. Remainder may be rinsed to a sewer.

7) Handling and Storage

Precautions for Safe Handling: Do not contaminate food, feed, or natural water. Supplier is not responsible for disposition of this product. Do not reuse container. Maintain an eyewash station, and safety shower in product handling areas.

Conditions for Safe Storage: Keep container closed when not in use. Store in a cool, dry location.

8) Exposure Controls and Personal Protection

Appropriate Engineering Controls: Ventilation: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

Exposure Limits:

Name (CAS-No.)	PEL	TWA	STEL	TLV
Ethoxylated alcohols (68439-46-3)	NONE	NONE	NONE	NONE
Monoethanolamine (141-43-5)	6 mg/m ³	ACGIH 3 ppm	ACGIH 6 ppm	NONE
Ethanol (64-17-5)	OHSA 1900 mg/m ³	NONE	ACGIH 1000 ppm	ACGIH 1880 mg/m ³

Personal Protective Equipment

Eye/Face	Skin	Gloves
		

Eye/Face: Safety glasses.

Skin: Wear appropriate clothing.

Gloves: Wear appropriate chemical resistant gloves.

Respiratory: Use only when concentrations exceed exposure limits. If limits are exceeded a NIOSH approved respirator is required. If eye irritation occurs use a full face style mask. When vapor concentrations are above 10 ppm or in a spill emergency a NIOSH approved self-contained breathing apparatus or airline respirator, with full-face piece is required. If respirators are warranted in the workplace a respiratory protection programs must meet 29 CFR 1910.134, and be followed.

Protective Material Types: Butyl rubber, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC), or Tychem (R)

9) Physical and Chemical Properties

Physical Form: Liquid

Appearance: Clear to Light Straw

Odor: Alcoholic Detergent

pH: 8.9

Melting Point: Not available

Freezing Point: Not Established

Boiling Point: 212-220° F

Flash Point: < 200°F

Evaporation Rate: < 1

Flammability: Not flammable

Upper/Lower Flammability or explosive limits: Not available

Vapor Pressure: Not Established

Vapor Density: Not Established

Relative Density: Not available

Specific Gravity: 1.06

Solubility: 100%

Partition coefficient: Not available

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

10) Stability and Reactivity

Chemical Stability: This product should maintain its physical characteristics when stored closed at moderate temperatures, between 28°F and 105°F.

Possibility of Hazardous Reactions: This product does not polymerize under normal storage and use conditions.

Conditions to Avoid: N/A

Materials to Avoid: Oxidizers, especially Chlorine Bleach

Hazardous Decomposition Products: Carbon Monoxide/Carbon Dioxide gases liberated during combustion.

11) Toxicological Information

Acute Toxicity:

Test	Results	Basis
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Summary Comments: Contact with skin for an extended period of time can cause irritation. If irritation or inflammation persist seek immediate medical attention.

Sub-chronic/Chronic Toxicity:

Chemical Name	CAS #	Mutagen	Teratogen	Carcinogen
Ethanol	64-17-5	Yes	Suspected	Yes

Summary Comments: Ethanol is documented to be a carcinogen and reproductive hazard in animals and humans.

Medical conditions aggravated by exposure: Respiratory system (including asthma and other breathing disorders)

12) Ecological Information

Toxicity:

Test	Results
Fathead minnow Fish LC50	96 hours 10 mg/l
Daphnia EC50	48 hours 10 mg/l
Algae ErC50	96 hours 10 mg/l

Persistence and Degradability: Product is believed to be biodegradable.

Bioaccumulative Potential: This material is believed not to bioaccumulate.

Mobility in Soil: N/A

Other Adverse Effects: N/A

13) Disposal Considerations

Disposal Method: Re-use or reprocess if possible. Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D002

14) Transport Information

UN Number: N/A

UN Proper Shipping Name: N/A

Transport Hazard Class (es): N/A

Packing Group: N/A

Environmental Hazard(s): N/A

Special Precautions for User: N/A

15) Regulatory Information

US Regulations:

CERCLA Sections 102a/103 Hazardous substances (40 CFR 302.4): N/A

SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21):

Acute: No

Chronic: No

Fire: No

Reactive: No

Sudden Release: No

State Regulations:

California Proposition 65: This product contains an ingredient known to be listed.

California Hazardous Substance List:

Ethanol 64-17-5

New Jersey Worker and Community Right to Know Hazardous Substance List:

Monoethanolamin 141-43-5

Ethanol 64-17-5

Pennsylvania Right to Know Hazardous Substance List:

Monoethanolamin 141-43-5

Ethanol 64-17-5

Rhode Island Right to Know: Hazardous Substance List:

Monoethanolamine 141-43-5

Massachusetts Right to Know: Hazardous Substance List:

Monoethanolamine 141-43-5

Canadian Regulations:

Controlled Products Regulations (CPR): This product has been classified in accordance with the criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the CPR.

WHMIS Classification: D2

National Inventory Status: U.S. Inventory (TSCA): All the components of this substance are listed on or exempt from the inventory.

TSCA 12(b) Export Notification: Not Listed

Canada Inventory (DSL/NDSL): All components of this product are listed on the DSL

16) Other Information

HMIS

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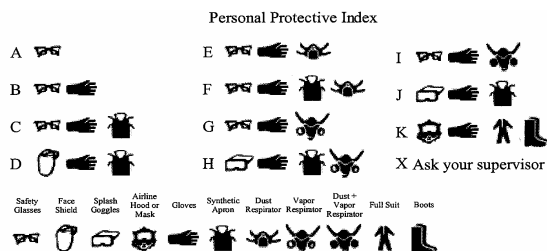
4-Severe

3-Serious

2-Moderate

1-Slight

0-Minimal



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Approved By: Elis M. Owens

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