

### 1. Product and Company Identification

<b>Product Code:</b>	C320	
<b>Product Name:</b>	Liqui Shield	
<b>Company Name:</b>	CYCLO INDUSTRIES, INC. 902 SOUTH US HIGHWAY 1 JUPITER, FL 33477	<b>Phone Number:</b> (800)843-7813
<b>Web site address:</b>	www.cyclo.com	
<b>Emergency Contact:</b>	First Aid Emergency CHEMTREC (703) 527-3887	(800)752-7869 (800)424-9300
<b>Information:</b>	First Aid Emergency (Outside U.S.)	(312)906-6194

### 2. Hazards Identification

**Flammable Liquids, Category 2**  
**Target Organ Systemic Toxicity (repeated exposure), Category 1**  
**Carcinogenicity, Category 1B**  
**Toxic To Reproduction, Category 2**  
**Target Organ Systemic Toxicity (single exposure), Category 3**  
**Germ Cell Mutagenicity, Category 1B**  
**Aspiration Toxicity, Category 1**



**GHS Signal Word:** **Danger**

**GHS Hazard Phrases:**

- H220: Extremely flammable gas.
- H225: Highly flammable liquid and vapor.
- H280: Contains gas under pressure; may explode if heated.
- H340: May cause genetic defects.
- H350: May cause cancer.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H320: Causes eye irritation
- H361: Suspected of damaging fertility or the unborn child.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H280: Contents under pressure. May explode if heated.

**GHS Precaution Phrases:**

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- P210: Keep away from heat/sparks/open flames/hot surfaces.
- P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.
- P240: Ground/bond container and receiving equipment
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product
- P271: Use only outdoors or in a well-ventilated area.
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P362: Take off contaminating clothing and wash before reuse

**GHS Response Phrases:** P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

P370+378: In case of fire, use alcohol foam, CO<sub>2</sub>, dry chemical, foam or water fog for extinction.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331: Do NOT induce vomiting.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

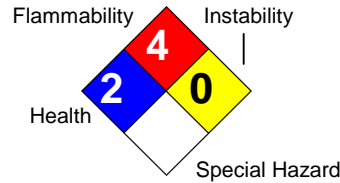
P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

**GHS Storage and Disposal Phrases:**

P410+403: Protect from sunlight and store in well-ventilated place.

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

**Hazard Rating System:**



**Potential Health Effects (Acute and Chronic):**

### 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
110-54-3	n-Hexane	20.0 -30.0 %
68476-86-8	Liquified petroleum gas, sweetened	20.0 -30.0 %
8052-41-3	Stoddard solvent	10.0 -20.0 %
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	1.0 -10.0 %
1314-13-2	Zinc oxide	0.1 -1.0 %
13463-67-7	Titanium dioxide	< 0.1 %

### 4. First Aid Measures

**Emergency and First Aid Procedures:**

If swallowed, do not induce vomiting. Give victim at least 3-4 glasses of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of skin contact, wash skin with soap and water. Take off contaminated clothing and wash before reuse. Call physician immediately if adverse reaction occurs.

## 5. Fire Fighting Measures

**Flash Pt:**  $\geq -141.00$  F (-96.1 C) Method Used: Pensky-Marten Closed Cup

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**Suitable Extinguishing Media:** Alcohol foam, CO2, dry chemical, foam, water fog.

**Fire Fighting Instructions:** Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Vapor may cause flash fire. Can form explosive mixtures at temperatures at or above the flashpoint. "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; they may explode and cause injury or death.

**Flammable Properties and Hazards:** No data available.

## 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear protective clothing to prevent skin and eye contact. Contain any liquid from leaking containers. Avoid all sources of ignition: heat, sparks and open flames. Do not puncture or incinerate container. Contents under pressure. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers.

## 7. Handling and Storage

**Precautions To Be Taken in Handling:** Keep out of the reach of children. Use only in a well ventilated area. Avoid breathing harmful vapors. Avoid contact with skin and eyes. Wash thoroughly after handling. Do not puncture or incinerate container. **KEEP OUT OF THE REACH OF CHILDREN.**

**Precautions To Be Taken in Storing:** Keep away from heat, sparks and flame. Keep from freezing. Keep container closed when not in use. Do not expose to heat or store at temperatures above 120 degrees F.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
110-54-3	n-Hexane	PEL: 500 ppm	TLV: 50 ppm	No data.
68476-86-8	Liquified petroleum gas, sweetened	No data.	No data.	No data.
8052-41-3	Stoddard solvent	PEL: 500 ppm	TLV: 100 ppm	No data.
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	No data.	No data.	No data.
1314-13-2	Zinc oxide	PEL: 5 (fume); 15 (dust) mg/m3	TLV: 2 mg/m3 (R) STEL: 10 mg/m3 (R)	No data.
13463-67-7	Titanium dioxide	PEL: 15 (dust) mg/m3	TLV: 10 mg/m3	No data.

**Respiratory Equipment (Specify Type):** Use in a well ventilated area. Local exhaust ventilation as necessary to control any air contaminants within their exposure limits. NIOSH/MSHA approved respirator when exposure is expected to exceed applicable limits.

**Eye Protection:** Chemical goggles. Face shield if splashing hazard exists.

**Protective Gloves:** Gloves resistant to petroleum distillates should be worn.

**Other Protective Clothing:** Protective clothing as necessary to prevent skin contact.

**Engineering Controls (Ventilation etc.):** No data available.



## 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Amber liquid. Solvent odor.
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	-23.00 F (-30.6 C) - 387.00 F (197.2 C)
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	>= -141.00 F (-96.1 C) Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Specific Gravity (Water = 1):</b>	.69
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	>=Air
<b>Evaporation Rate:</b>	No data.
<b>Solubility in Water:</b>	Negligible
<b>Viscosity:</b>	water thin
<b>pH:</b>	NE
<b>Percent Volatile:</b>	68.8 % by weight.

## 10. Stability and Reactivity

<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Keep away from heat, sparks & flame.
<b>Incompatibility - Materials To Avoid:</b>	Strong oxidizers.
<b>Hazardous Decomposition Or Byproducts:</b>	Smoke, fumes, oxides of carbon, nitrogen, silica, and various metal oxides are possible decomposition products. Carbon monoxide, carbon dioxide, smoke, fumes.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ] Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

## 11. Toxicological Information

**Toxicological Information:** No data available.

CAS# 64742-52-5:  
 Mutagenicity:, Mutation test: Mutation in microorganisms., 10.00 UL/PLAT, Bacteria - Salmonella typhimurium,.  
 Results:  
 Behavioral: Coma.  
 Biochemical:Metabolism (intermediary): Other.  
 - Cell Biology and Toxicology., Princeton Scientific Pub., Inc., 301 N. Harrison St., CN 5279, Princeton, NJ 08540, Vol/p/yr: 2,63, 1986

Acute toxicity, LD (Lethal dose), Oral, Rat, 5.000 GM/KG.  
 Results:  
 Tumorigenic: Neoplastic by RTECS criteria.  
 Lungs, Thorax, or Respiration: Tumors.  
 Tumorigenic:Tumors at site of application.  
 - Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

Acute toxicity, LD (Lethal dose), Skin, Species: Rabbit, 5.000 GM/KG.  
 Results:  
 Behavioral: Coma.  
 Biochemical:Metabolism (intermediary): Other.  
 - Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

Tumorigenic Effects:, TDLo, Skin, Mouse, 480.0 GM/KG, 80 W.  
 Results:  
 Tumorigenic: Neoplastic by RTECS criteria.  
 Skin and Appendages: Other: Tumors.  
 Tumorigenic:Tumors at site of application.  
 - United States Environmental Protection Agency, Office of Pesticides and Toxic Substances., U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances, 401 M St., SW, Washington, DC 20460, Vol/p/yr: 8EHQ-0887-,

Tumorigenic Effects:, TDLo, Skin, Mouse, 402.0 GM/KG, 78 W.  
 Results:  
 Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.  
 Skin and Appendages: Other: Tumors.  
 Tumorigenic:Tumors at site of application.  
 - British Journal of Cancer., Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG21 2XS UK, Vol/p/yr: 48,429, 1983

Tumorigenic Effects:, TDLo, Skin, Mouse, 398.0 GM/KG, 22 W.  
 Results:  
 Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.  
 Skin and Appendages: Other: Tumors.  
 Tumorigenic:Tumors at site of application.  
 - British Journal of Cancer., Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG21 2XS UK, Vol/p/yr: 48,429, 1983

Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, Severe.



**Results:**

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site of application.

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
110-54-3	n-Hexane	n.a.	n.a.	n.a.	n.a.
68476-86-8	Liquified petroleum gas, sweetened	n.a.	n.a.	n.a.	n.a.
8052-41-3	Stoddard solvent	n.a.	n.a.	n.a.	n.a.
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	n.a.	n.a.	n.a.	n.a.
1314-13-2	Zinc oxide	n.a.	n.a.	n.a.	n.a.
13463-67-7	Titanium dioxide	n.a.	2B	A4	n.a.

## 12. Ecological Information

**General Ecological Information:** Do not allow to enter sanitary drains, sewer or surface or subsurface waters. Keep out of lakes, ponds or streams.

## 13. Disposal Considerations

**Waste Disposal Method:** Dispose of contents/container in accordance with local/regional/national/international regulation.

**Waste Disposal Method:** DISP

## 14. Transport Information

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:**

**DOT Hazard Class:** ORM-D ORM-D

**UN/NA Number:**

**LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:**

**UN Number:**

**Hazard Class:** N.A.

**MARINE TRANSPORT (IMDG/IMO):**

**IMDG/IMO Shipping Name:** Aerosols, Ltd. Qty.

**UN Number:** 1950

**Hazard Class:** N.A.

**Packing Group:**

**IMDG Classification:** 2.1

**Marine Pollutant:** No

**AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Aerosols, flammable, 2.1, Ltd. Qty.

**UN Number:** 1950

**Hazard Class:** N.A.

**IATA Classification:** 2.1

## 15. Regulatory Information

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
110-54-3	n-Hexane	No	Yes 5000 LB	Yes
68476-86-8	Liquified petroleum gas, sweetened	No	No	No
8052-41-3	Stoddard solvent	No	No	No
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	No	No	No
1314-13-2	Zinc oxide	No	No	Yes-Cat. N982
13463-67-7	Titanium dioxide	No	No	No

**CAS # Hazardous Components (Chemical Name)**

**Other US EPA or State Lists**

110-54-3	n-Hexane	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Inventory, 4 Test; CA PROP.65: No; CA TAC, Title 8: TAC; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: Yes; NJ EHS: Yes - 1340; NY Part 597: Yes; PA HSL: Yes - 1; SC TAP: Yes; WI Air: Yes
68476-86-8	Liquified petroleum gas, sweetened	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
8052-41-3	Stoddard solvent	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 1736; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: Yes
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
1314-13-2	Zinc oxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: Yes - Cat.; MI CMR, Part 5: Part 5; NC TAP: No; NJ EHS: Yes - 2037; NY Part 597: No; PA HSL: Yes - E; SC TAP: No; WI Air: No
13463-67-7	Titanium dioxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: Yes; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 1861; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: No

**CAS # Hazardous Components (Chemical Name)**

**International Regulatory Lists**

110-54-3	n-Hexane	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
68476-86-8	Liquified petroleum gas, sweetened	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
8052-41-3	Stoddard solvent	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
1314-13-2	Zinc oxide	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
13463-67-7	Titanium dioxide	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA:



Yes

## 16. Other Information

**Revision Date:** 07/24/2014

**Additional Information About This Product:** NOT FOR SALE IN CA.

**This Product:**

**Company Policy or**

**Disclaimer:**

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