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according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

#### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 **Product Code:** C99 & C100 **Product Name:** Starting Fluid

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.3 **Details of the Supplier of the Safety Data Sheet:** 

> **Company Name:** CYCLO INDUSTRIES, INC. **Phone Number:**

> > 902 SOUTH US HIGHWAY 1 (800)843-7813

JUPITER, FL 33477

Web site address: www.cyclo.com

Information: First Aid Emergency (Outside U.S.) (312)906-6194

1.4 **Emergency telephone number:** 

> **Emergency Contact:** First Aid Emergency (800)752-7869

> > CHEMTREC (703) 527-3887 (800)424-9300

#### Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

Flammable Gases, Category 1

Gas Under Pressure, Compressed gas

Flammable Liquids, Category 1

Acute Toxicity: Oral, Category 4

Skin Corrosion/Irritation, Category 2

Carcinogenicity, Category 1B

Target Organ Systemic Toxicity (single exposure), Category 3

**Aspiration Toxicity, Category 1** 

Aquatic Toxicity (Acute), Category 1

**Aquatic Toxicity (Chronic), Category 1** 

2.2 **Label Elements:** 

Labeling according to Regulation (EC) No 1272/2008 [CLP]:











**GHS Signal Word:** Danger

**GHS Hazard Phrases:** 

H220: Extremely flammable gas.

H280: Contains gas under pressure; may explode if heated.

H224: Extremely flammable liquid and vapor.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.

H350: May cause cancer.

H335: May cause respiratory irritation.

H304: May be fatal if swallowed and enters airways.

H410: Very toxic to aquatic life with long lasting effects.

**GHS Precaution Phrases:** 

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233: Keep container tightly closed.

P280: Wear protective gloves/clothing and eye/face protection.



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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.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P273: Avoid release to the environment.

#### **GHS Response Phrases:**

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

P381: Eliminate all ignition sources if safe to do so.

P370+378: In case of fire, use dry chemical, CO2 or alcohol foam for extinction.

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

P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

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

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

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

P331: Do NOT induce vomiting.

#### **GHS Storage and Disposal Phrases:**

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

P403+235: Store in cool/well-ventilated place.

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

#### **Hazard Rating System:**



# 2.3 Adverse Human Health Effects and Symptoms:

### Section 3. Composition/Information on Ingredients

CAS#	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
142-82-5	Heptane	50.0 -60.0 %	205-563-8 601-008-00-2	Flam. Liq. 2: H225 Asp. Toxic. 1: H304 Skin Corr. 2: H315 TOST (SE) 3: H335 H336 Aquatic (A) 1: H400 Aquatic (C) 1: H410
60-29-7	Ethane, 1,1'-Oxybis-	30.0 -40.0 %	200-467-2 603-022-00-4	Flam. Liq. 1: H224 Acute Tox.(O) 4: H302 TOST (SE) 3: H335 H336
124-38-9	Carbon dioxide	5.0 -10.0 %	204-696-9 NA	No data available.



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**Section 4. First Aid Measures** 

4.1 Description of First AidIf swallowed, call a physician immediately. Only induce vomiting at the instruction of a

Measures:

physician. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. In case of eye contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes. Do not permit victim to rub eyes. In case of skin contact, wash with soap and water for 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. Remove contaminated clothing and shoes, and launder before reuse. Call physician immediately if adverse reaction occurs.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Dry chemical. Carbon dioxide. Alcohol foam. Use water spray to keep containers cool

Media: that are exposed to heat or flames.

5.2 Flammable Properties No data available.

and Hazards:

**Flammability** NFPA Level 3 Aerosol

Classification:

Instructions:

Flash Pt: < -10.00 F (-23.3 C) Method Used: TAG Closed Cup

LEL: 1.2 UEL: 6.7 **Explosive Limits:** 

**Autoignition Pt:** 365.00 F (185.0 C)

Wear approved positive-pressure self-contained breathing apparatus and protective 5.3 **Fire Fighting** 

> clothing. Vapor may cause flash fire. Fight from a maximum distance or use unmanned hose holders or monitor nozzles. Containers can build up pressure if exposed to heat; cool with flooding quantities of water until well after the fire is out. Withdraw immediately

in case of rising sound from venting safety devices or discoloration of vessel.

Section 6. Accidental Release Measures

6.3 **Methods and Material** For Containment and

Cleaning Up:

Wear appropriate protective clothing and equipment 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. Wipe, scrape or soak up in an inert material and put in a

container intended for flammable materials disposal. Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

Section 7. Handling and Storage

Caution: Contents under pressure. Keep away from heat and open flame. Use only in a 7.1 **Precautions To Be** Taken in Handling: well ventilated area. Avoid breathing vapors, if exposed to high vapor concentration,

leave area at once. Avoid contact with skin and eyes. Keep out of the reach of children.

7.2 Do not puncture, incinerate or store above 120 degrees F. Exospore to high **Precautions To Be** 

Taken in Storing: temperatures may cause bursting. Do not store in the passenger compartment of an

automobile. Store in a cool, dry place, out of direct sunlight.

Section 8. Exposure Controls/Personal Protection

8.1 **Exposure Parameters:** 

CAS# **Partial Chemical Name Britain EH40** France VL **Europe** 

142-82-5 TWA: 2085 mg/m3 (500 ppm) TWA: 1668 mg/m3 (400 TWA: 2085. mg/m3 Heptane

STEL: () ppm)

STEL: 2085 mg/m3 (500

ppm)

MIRS MSDS, (c) A V Systems, Inc.



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60-29-7 Ethane, 1,1'-Oxybis- TWA: 310 mg/m3 (100 ppm) TWA: 308 mg/m3 (100 ppm) TWA: 308 mg/m3 (200 ppm) STEL: 616 mg/m3 (200 ppm) STEL: 616 mg/m3

124-38-9 Carbon dioxide TWA: 9150 mg/m3 (5000 ppm) TWA: 9000 mg/m3 (5000 TWA: 9000 mg/m3

STEL: 27400 mg/m3 (15000 ppm)

ppm)

CAS# **Partial Chemical Name OSHA TWA ACGIH TWA Other Limits** 142-82-5 Heptane PEL: 500 ppm TLV: 400 ppm No data. PEL: 400 ppm TLV: 400 ppm No data. 60-29-7 Ethane, 1,1'-Oxybis-STEL: 500 ppm 124-38-9 Carbon dioxide PEL: 5000 ppm TLV: 5000 ppm No data. STEL: 30,000 ppm

8.2 Exposure Controls:

**8.2.1 Engineering Controls** Use in a well ventilated area. Local exhaust ventilation as necessary to maintain

**(Ventilation etc.):** exposures to within applicable limits.

8.2.2 Personal protection equipment:

**Eye Protection:** Chemical goggles; also wear a face shield if splashing hazard exists.

Protective Gloves: Wear protective clothing and gloves.

Other Protective Wear protective clothing and gloves.

Clothing:

Respiratory Equipment No data available.

(Specify Type):

#### Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [ X ] Liquid [ ] Solid

**Appearance and Odor:** Colorless to pale yellow liquid. Pungent sweet odor.

Melting Point:No data.Boiling Point:No data.

Flash Pt: < -10.00 F (-23.3 C) Method Used: TAG Closed Cup

**Evaporation Rate:** NE

**Explosive Limits:** LEL: 1.2 UEL: 6.7

NE

Vapor Pressure (vs. Air or

mm Hg):

Vapor Density (vs. Air = 1): NE

Specific Gravity (Water = 1): No data.

Density: 5.71 LB/GA
Solubility in Water: Partially

**Autoignition Pt:** 365.00 F (185.0 C)

Viscosity: NE



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9.2 Other Information

Percent Volatile: 93.3 %

Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

10.3 Conditions To Avoid - No data available.

**Hazardous Reactions:** 

Possibility of Will occur [ ] Will not occur [ X ]

Hazardous Reactions:

10.4 Conditions To Avoid - Keep away from heat, sparks and flame. Avoid any source of ignitron. Do not expose to

Instability:

Contact with oxidizing agents. Concentrated oxygen. Nitric acid. Avoid contact with

Materials To Avoid: chlorine in the presence of light.

10.6 Hazardous

10.5 Incompatibility -

Carbon monoxide and other asphxiants. Explosive peroxides. Will react with nitric acid to

Decomposition Or Byproducts:

form explosive nitrates.

### **Section 11. Toxicological Information**

heat or store at temperatures above 120 degrees F.

#### 11.1 Information on Toxicological Effects:

No data available.

CAS# 142-82-5:

Other Studies:, TDLo, Oral, Rat, 60.00 GM/KG, 3 W.

Results:

Kidney, Ureter, Bladder: Changes in liver weight.

- National Technical Information Service, Vol/p/yr: OTS0571116,

Other Studies:, TDLo, Oral, Rat, 260.0 GM/KG, 13 W.

Results:

Kidney, Ureter, Bladder: Changes in bladder weight.

Endocrine: Hypoglycemia.

Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

- National Technical Information Service, Vol/p/yr: OTS0571116,

Other Studies:, TCLo, Inhalation, Rat, 4000. PPM, 6 D.

Results:

Brain and Coverings: Recordings from specific areas of CNS.

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Ear: Changes in cochlear structure or function.

Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

- Pharmacology and Toxicology, Munksgaard International Pub., POB 2148, Copenhagen K Denmark, Vol/p/yr: 76,41, 1995

Other Studies:, TDLo, Intraperitoneal, Rat, 9625. MG/KG, 7 D.

Results:

Liver: Other changes.

Blood: Changes in serum composition (e.g.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Multiple enzyme effects.

- Toxicology Letters., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam 1000 AE Netherlands, Vol/p/yr: 14,169, 1982



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Other Studies:, TDLo, Intraperitoneal, Rat, 8840. MG/KG, 45 D.

Results:

Liver: Other changes.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:

Phosphatases.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Hepatic microsomal mixed oxidase (dealkylation, hydroxylation, etc.)

- JAT, Journal of Applied Toxicology., John Wiley & Sons Ltd., Baffins Lane, Chichester, W.Sussex PO19 1UD UK, Vol/p/yr: 8,81, 1988

Acute toxicity, TCLo, Inhalation, Human, 1000. PPM, 6 M.

Results:

Behavioral: Hallucinations, distorted perceptions.

- "U.S. Bureau of Mines Report of Investigation No. 2979," Patty, F.A., and W.P. Yant, 1929 Volume, Vol/p/yr: 2979,-, 1929

Acute toxicity, LC50, Inhalation, Rat, 103.0 GM/M3, 4 H.

Results:

Behavioral: Change in motor activity (specific assay).

Behavioral: Alteration of classical conditioning.

- Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 32(10),23, 1988

Acute toxicity, LCLO, Inhalation, Mouse, 59.00 GM/M3, 41 M.

Results:

Behavioral: Convulsions or effect on seizure threshold.

- Biochemische Zeitschrift., For publisher information, see EJBCAI, Berlin Germany, Vol/p/yr: 115,235, 1921

Acute toxicity, LD50, Intravenous, Mouse, 222.0 MG/KG.

Results:

Brain and Coverings: Changes in circulation (hemorrhage,thrombosis, etc.

Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal: Nausea or vomiting.

- Journal of Pharmaceutical Sciences., American Pharmaceutical Assoc., 2215 Constitution Ave., NW, Washington, DC 20037, Vol/p/yr: 67,566, 1978

CAS#	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
142-82-5	Heptane	n.a.	n.a.	n.a.	n.a.
60-29-7	Ethane, 1,1'-Oxybis-	n.a.	n.a.	n.a.	n.a.
124-38-9	Carbon dioxide	n.a.	n.a.	n.a.	n.a.



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### **Section 12. Ecological Information**

#### **Section 13. Disposal Considerations**

13.1 Waste Disposal Method:

Residues and spilled material are hazardous waste due to ignitability. Disposal should be made in accordance with federal, state and local regulations.

#### **Section 14. Transport Information**

#### 14.1 LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Consumer Commodity **DOT Hazard Class:** ORM-D ORM-D

**UN/NA Number:** 

#### 14.1 LAND TRANSPORT (European ADR/RID):

**ADR/RID Shipping Name:** 

**UN Number:** 

Hazard Class: N.A.

#### 14.2 MARINE TRANSPORT (IMDG/IMO):

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

UN Number: 1950 Packing Group:

Hazard Class: N.A. IMDG Classification: 2.1

Marine Pollutant: No

14.3 AIR TRANSPORT (ICAO/IATA):

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

**UN Number:** 

Hazard Class: N.A. IATA Classification: 2.1

### Section 15. Regulatory Information

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

EPA SARA (Superfund Amendments and Reauthorization Act of 1966) Lists							
CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)			
142-82-5	Heptane	No	No	No			
60-29-7	Ethane, 1,1'-Oxybis-	No	Yes 100 LB	No			
124-38-9	Carbon dioxide	No	No	No			
CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists					
142-82-5	Heptane	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory, 4 Test, 8A PAIR; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 1339; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: No					
60-29-7	Ethane, 1,1'-Oxybis-	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory, 4 Test, 8A PAIR; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: No; NJ EHS: Yes - 0701; NY Part 597: Yes; PA HSL: Yes - E; SC TAP: No; WI Air: No					
124-38-9	Carbon dioxide			No; TSCA: Inventory; CA e 8; MA Oil/HazMat: Yes;			

CAS # Hazardous Components (Chemical Name)

142-82-5 Heptane

#### International Regulatory Lists

 ${\it Canadian \ DSL: Yes; \ Canadian \ NDSL: No; \ Taiwan \ TCSCA: }$ 

MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 0343; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: Yes

Yes



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Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA:

Yes

124-38-9 Carbon dioxide Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA:

Yes

### Section 16. Other Information

**Revision Date:** 08/29/2013

Additional Information About No data available.

Ethane, 1,1'-Oxybis-

**This Product:** 

**Company Policy or** 

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