

# SAFETY DATA SHEET

## CLIPLIGHT 1,2,3 30 SHOT UV DYE™

Revision Date: May 28, 2015

Supersedes: April 16, 2012

Version: 2.1

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

**Product Name:** CLIPLIGHT 1,2,3 30 SHOT UV DYE™

**Part Number:** 930KIT

**Product Use:** A/C leak detection

**Manufacturer:** Cliplight Manufacturing  
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### Section 2 – Hazards Identification

**GHS Classification:**

Aerosols: Category 3

**Label elements:**

Symbol: None

Signal Word: Warning

**Hazard statements:**

H229: Pressurized container: may burst if heated

**Precautionary statements:**

P210 Keep away from hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 Do not pierce or burn, even after reuse.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

### Section 3 – Composition/Information on Ingredients

Ingredient Name	CAS No.	EC No.	Composition, wt%
1,1,1,2-Tetrafluoroethane	811-97-2	212-377-0	55-65

Other components of this product are not classified as hazardous under the GHS, 29 CFR 1910.1200, WHMIS 2015 or (EC) No 1272/2008.

### Section 4 – First-Aid Measures

**Inhalation**

Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

**Eye Contact**

Remove contact lenses and immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention.

#### **Skin Contact**

Remove contaminated clothing. Flush skin with warm, not hot, water. If frostbite has occurred or irritation persists, seek medical attention.

#### **Ingestion**

If swallowed, give large quantities of water to drink. Induce vomiting. Immediately see a physician. Never give anything by mouth nor induce vomiting of an unconscious person.

#### **Acute and Delayed Symptoms**

Symptoms of inhalation include dizziness, confusion, drowsiness, nausea, or unconsciousness. At higher levels, heartbeat irregularity may be a result with additional symptoms such as heart-thumping.

Skin contact can lead to symptoms such as frostbite, irritation, redness or swelling.

Eye contact can lead to symptoms such as frostbite, irritation and redness.

#### **Special Treatment Needed**

Because inhalation may lead to cardiac irregularities, treatment of patients with catecholamine drugs should be avoided.

### **Section 5 – Fire-Fighting Measures**

#### **Extinguishing media**

In case of fire, use foam, carbon dioxide, dry chemical and water spray.

#### **Special hazards arising from the substance or mixture**

Hazardous decomposition products during a fire include carbon oxides, hydrogen fluoride and other fluorinated compounds. In a fire or in intense heat, a pressure increase will occur and the container may burst. Use water spray to keep fire-exposed containers cool. The liquid fraction of this product may be flammable. Vapours are denser than air and will have a tendency to accumulate in lower areas.

#### **Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

### **Section 6 – Accidental Release Measures**

#### **Personal precautions**

Keep unnecessary personnel away. Wear safety glasses with side shields or splash goggles. Provide adequate ventilation. In case of insufficient ventilation with large spills, wear suitable respiratory equipment.

#### **Environmental precautions**

Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

#### **Methods and materials for containment and cleaning up**

Evacuate the spill area. Floor may be slippery if non-volatile components in product have wetted the floor; use care to avoid falling. Ventilate the spill area. Avoid breathing vapour. Contain non-volatile material spills immediately with inert adsorption materials. Transfer liquids and solid adsorption materials and diking material to separate suitable containers for disposal. Dispose of waste material in accordance with all local, state, provincial, and national requirements.

### Section 7 – Handling and Storage

#### Conditions for safe handling

Ensure adequate ventilation. Avoid causing and inhaling high concentrations of vapour. Avoid exposure of product to very hot surfaces.

#### Conditions for safe storage

Store in a cool, well ventilated place. Keep containers dry. Store product away from reactive and corrosive materials. The minimum recommended storage temperature for this material is -29°C/-20° F. The maximum storage temperature is 49°C/120°F

### Section 8 – Exposure Controls/Personal Protection

#### Control Parameters:

COMPONENT	CAS No.	EC No.	VALUE	CONTROL PARAMETER
1,1,1,2-Tetrafluoroethane	811-97-2	206-557-8	AIHA WEEL TWA (8 hr.)	1000 ppm

#### Engineering Controls

Provide adequate ventilation.

#### Protective Equipment

Wear chemical-resistant clothing and safety glasses with side shields or splash goggles. Wear insulated gloves suitable for low temperatures.

#### Hygiene

Handle in accordance with good industrial hygiene and safety practices.

### Section 9 – Physical and Chemical Properties

The product consists of liquid under gas pressure.

Appearance	Yellow liquid
Odour	Ethereal and bland
Odour threshold	No data available
pH	<7 (liquid water extract)
Melting point/freezing point	No data available
Initial boiling point/ boiling range	-26.5°C (-15.7°F)
Flash point	No data available
Evaporation rate	>120
Flammability or explosive limits	No data available
Vapour pressure	570 kPa @ 20°C; 85.6 psia @ 68°F
Vapour density	3.3 (Air = 1)
Specific gravity	1.122 @ 4°C (39°F)
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	>350°C (>660°F)
Decomposition temperature	No data available
Viscosity (liquid)	22 cP @ 20°C (68°F)

## Section 10 – Stability and Reactivity

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Unlikely

### Conditions to avoid

This is a pressurized container; protect from sunlight and do not expose to temperature exceeding 49°C (120°F).

### Incompatible materials

Avoid contact with strong oxidizing and reducing agents and alloys containing more than 2 percent magnesium.

### Hazardous decomposition products

Hazardous decomposition products during a fire include carbon oxides (CO, CO<sub>2</sub>), hydrogen fluoride, carbonyl fluoride and other fluorinated compounds.

## Section 11 – Toxicological Information

The toxicological properties of this product have not been investigated. Some information for components is provided below.

### Acute toxicity

Inhalation: 1,1,1,2-Tetrafluoroethane  
LC50 rat/4h: 500000 ppm  
Low Observed Adverse Effect Concentration (LOAEC) / dog: 75000 ppm  
Cardiac sensitization

### Skin corrosion/irritation

Rabbit: 1,1,1,2-Tetrafluoroethane – slight irritation

### Serious eye damage/irritation

Rabbit: 1,1,1,2-Tetrafluoroethane – slight irritation

### Respiratory or skin sensitization

Guinea pig: 1,1,1,2-Tetrafluoroethane – not a skin sensitizer

### Repeated dose toxicity

Inhalation: 1,1,1,2-Tetrafluoroethane  
NOEL: 40000 ppm

### Germ cell mutagenicity

1,1,1,2-Tetrafluoroethane: No mutagenic effects in animals or in tests on bacterial or mammalian cell cultures.

### Carcinogenicity

None of the components of this product are identified as a carcinogen by IARC, ACGIH, NTP or OSHA.

**Reproductive toxicity**

1,1,1,2-Tetrafluoroethane: No toxicity to reproduction.

**Specific target organ toxicity – single exposure**

No data available

**Aspiration hazard**

No data available

**Potential Health Effects:**

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Eye Contact:** Liquid splashes may cause eye irritation. Vapour spray may cause irritation or freeze burns.

**Skin Contact:** Vapour spray may cause freeze burns. Product can cause skin irritation.

**Ingestion:** Extremely unlikely to occur in use. May cause slight irritation if ingested but not toxic.

**Section 12 – Ecological Information**

No data are available for the ecological effects of this product; some information on components is provided below.

**Ecotoxicity**

Toxicity to fish                    1,1,1,2-Tetrafluoroethane  
   LC50 – 96 h  
   Species: Oncorhynchus mykiss  
   Result: 450 mg/l

Toxicity to other                    1,1,1,2-Tetrafluoroethane  
organisms                            EC50 - 48 h  
   Species: Daphnia magna  
   Result: >980 mg/l

**Persistence and degradability**

1,1,1,2-Tetrafluoroethane  
Not readily biodegradable

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

1,1,1,2-Tetrafluoroethane:  
Ozone depletion potential (ODP): 0  
Global warming potential (GWP): 1300

### Section 13 – Product Disposal

**Product**

Dispose of in compliance with local, state/provincial or federal regulations. Do not vent to the atmosphere. The provisions of the U.S. Clean Air Act require any residual gases to be recovered.

**Contaminated packaging**

Dispose of as for product.

### Section 14 – Transport Information

**DOT Hazard Description:**

<u>PART NUMBER</u>	<u>SHIPPING NAME</u>	<u>HAZARD CLASS</u>	<u>ID NO.</u>	<u>PACKING GROUP</u>
930KIT	Consumer Commodity	ORM-D	UN 1950	N/A

**DOT/IMDG/IACO/IATA/TDG**

Shipping Name: AEROSOLS, non-flammable

UN #: 1950

Class: 2.2

### Section 15 – Regulatory Information

All components of this product are listed in the U.S. Toxic Substances Control Act (TSCA) Inventory.

All components of this product are on the Canadian Domestic Substances List (DSL).

A chemical safety assessment has not been carried out for this product.

### Section 16 – Other Information

**HMIS CLASSIFICATION**

Health Hazard:	1
Flammability:	0
Physical Hazards:	0

**Notes to this Revision**

This version 2.1 (May 28, 2015) has been updated from the previous version of April 16, 2012 to conform to the requirements of the GHS, OSHA Hazard Communications Standard 2012, WHMIS 2015 and (EU) No 453/2010.

The hazard classification of the product has been changed. However, no substantive changes have been made to the description of the product or to instructions for its safe use, transportation, handling and storage.

All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.