



**RAINBOW TECHNOLOGY**  
Specialists in Utility Chemicals & Safety Items

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Woman-Owned Business Enterprise - Founded 1971

# Safety Data Sheet (SDS)

## 1. IDENTIFICATION

**Customer** RAINBOW TECHNOLOGY  
**Product Name** HD Cleaner  
**Product Number** 87000  
**Manufacturer/Supplier** Rainbow Technology Corporation  
 261 Cahaba Valley Parkway  
 Pelham, AL 35124  
 800.637.6047  
 www.rainbowtech.net  
**Contact Person** Larry Joe Steeley, Jr.  
**Emergency Information** CHEMTEL 1-800-255-3924  
 813-248-0585 if located outside the U.S.

**Revised Date:** August 11, 2015  
**Replaces SDS Dated:** February 5, 2010

## 2. HAZARDS IDENTIFICATION

**Appearance** Colorless liquid      **Physical State** Aerosol      **Odor** Faint ether

**Classification**

Acute toxicity - Inhalation (Gases)	Category 4
Carcinogenicity	Category 1B
Gases Under Pressure	Compressed Gas

**Hazards Not Otherwise Classified (HNOC)**

May be harmful if swallowed

**Signal Word**



**Danger**

**Hazard Statements**

Suspected of causing genetic defects  
 May cause cancer.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause drowsiness or dizziness.  
 Contains gas under pressure; may explode if heated.

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## **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

## **Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

## **Precautionary Statements - Storage**

Store locked up  
Protect from sunlight. Store in a well-ventilated place

## **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

## **Other Hazards**

Toxic to aquatic life with long lasting effects

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
Trichloroethylene	79-01-6	92-97
Carbon dioxide	124-38-9	3-5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

## **4. FIRST-AID MEASURES**

### **First Aid Measures**

<b>General Advice</b>	If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.

### **Most important symptoms and effects**

<b>Symptoms</b>	Contact may cause irritation and redness. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness, and nausea.
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### **Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media:** Not determined.

### Specific Hazards Arising from the Chemical

Vapors are heavier than air and may spread along floors.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Use personal protective equipment as required. Remove all sources of ignition.

### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Contain and collect with an inert absorbent and place into an appropriate container for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Avoid breathing vapors or mists. Use only in well-ventilated areas. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Do not get in eyes, on skin, or on clothing. Do not throw empty containers in trash compactor.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from direct sunlight. Do not store at temperatures above 120°F.

**Incompatible Materials** Water, reactive metals, various plastics.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trichloroethylene 79-01-6	**WE Short-term value: 150 ppm Long-term value: 100 ppm	No information	No information
Carbon dioxide 124-38-9	STEL: 30000 ppm TWA: 5000 ppm	TWA: 5000 ppm TWA: 9000 mg/m <sup>3</sup> (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m <sup>3</sup> (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m <sup>3</sup>	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m <sup>3</sup> STEL: 30000 ppm STEL: 54000 mg/m <sup>3</sup>

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## Appropriate engineering controls

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

## Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Goggles.

**Skin and Body Protection** For prolonged or repeated skin contact use suitable protective gloves. Polyvinyl alcohol or polyethylene gloves are recommended.

**Respiratory Protection** Where excess concentration of product is expected, a NIOSH approved air-supplied respirator is advised in absence of proper environmental control.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Aerosol	<b>Odor</b>	sweetish
<b>Appearance</b>	Colorless liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Colorless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	Not determined		
<b>Melting Point/Freezing Point</b>	Not determined		
<b>Boiling Point/Boiling Range</b>	Not determined		
<b>Flash Point</b>	Not applicable		
<b>Evaporation Rate</b>	Faster than butyl acetate		
<b>Flammability (Solid, Gas)</b>	Non-flammable aerosol		
<b>Upper Flammability Limits</b>	99%		
<b>Lower Flammability Limit</b>	7.9%		
<b>Vapor Pressure</b>	110 psig		
<b>Vapor Density</b>	Heavier than air		
<b>Specific Gravity</b>	1.40-1.50	(1=Water)	
<b>Water Solubility</b>	Slightly soluble		
<b>Solubility in other solvents</b>	Not determined		
<b>Partition Coefficient</b>	Not determined		
<b>Auto-ignition Temperature</b>	Not determined		
<b>Decomposition Temperature</b>	Not determined		
<b>Kinematic Viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not determined		
<b>Oxidizing Properties</b>	Not determined		
<b>VOC Content</b>	~97%		

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

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## Conditions to Avoid

Avoid contact with heat, sparks, electric arcs, other hot surfaces and openflames.

## Incompatible Materials

Water, reactive metals, and various plastics.

## Hazardous Decomposition Products

Carbon oxides. Hydrogen chloride.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Avoid contact with eyes. Causes severe irritations.
<b>Skin Contact</b>	Avoid contact with skin. Irritant to skin and mucous membranes.
<b>Inhalation</b>	Irritant to skin and mucous membranes.
<b>Ingestion</b>	May be harmful if swallowed.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Trichloroethylene 79-01-6	= 4920 mg/kg ( Rat )	29000 mg/kg (rabbit)	No information

### Information on physical, chemical and toxicological effects

<b>Symptoms</b>	Please see section 4 of this SDS for symptoms.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Carcinogenicity</b> Muta. 2, Carc. 1B	May cause cancer.
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#### Legend

*ACGIH (American Conference of Governmental Industrial Hygienists)*  
A3 - Animal Carcinogen  
*IARC (International Agency for Research on Cancer)*  
Group 2A - Probably Carcinogenic to Humans  
**NTP (National Toxicology Program)**  
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen  
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**  
X - Present

### Numerical measures of toxicity

Not determined

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trichloroethylene 79-01-6	No information	No information	No information	No information

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

Mobility: Not determined

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## 14. TRANSPORT INFORMATION

**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

UN/ID No UN1950  
 Proper Shipping Name Aerosols  
 Hazard Class 2.2

**IATA**

UN/ID No UN1950  
 Proper Shipping Name Aerosols, non-flammable  
 Hazard Class 2.2

**IMDG**

UN/ID No UN1950  
 Proper Shipping Name Aerosols  
 Hazard Class 2.2  
 Marine Pollutant This material may meet the definition of a marine pollutant

## 15. REGULATORY INFORMATION

**US Federal Regulations**

**CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Trichloroethylene 79-01-6			100 pounds

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Trichloroethylene	79-01-6	92-97	

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Trichloroethylene -79-01-6	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Trichloroethylene 79-01-6	X	X	X
Carbon dioxide 124-38-9	X	X	X

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## 16. OTHER INFORMATION

**Additional Product Information** This product contains chlorinated solvents and cannot be sold in New Jersey or California

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Reactivity</b>	<b>Special Hazards</b>
	2	1	0	Not determined
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	2	0	0	Not determined

**Issue Date:** August 11, 2015

**Revision Date:**

**Revision Note:** New format

### 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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.

**End of Safety Data Sheet**