1. IDENTIFICATION

Customer: RAINBOW TECHNOLOGY
Product Name: HD Cleaner
Product Number: 87000
Manufacturer/Supplier: Rainbow Technology Corporation
Address: 261 Cahaba Valley Parkway, Pelham, AL 35124
Phone: 800.637.6047
Website: www.rainbowtech.net

Contact Person: Larry Joe Steeley, Jr.
Emergency Information:
- CHEMTEL 1-800-255-3924
- Emergency Telephone (24 hr)
- INFOTRAC 1-352-323-3500
- 1-800-535-5053 (North America)

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

Contains gas under pressure; may explode if heated.
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>79-01-6</td>
<td>92-97</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>3-5</td>
</tr>
</tbody>
</table>

**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

General Advice
If exposed or concerned: Get medical advice/attention.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin Contact
Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Inhalation
Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion
Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.

Most important symptoms and effects

Symptoms
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.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>**WE Short-term value: 150 ppm Long-term value: 100 ppm</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>79-01-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>STEL: 30000 ppm TWA: 5000 ppm</td>
<td>TWA: 5000 ppm TWA: 9000 mg/m³ (vacated) TWA: 10000 ppm TWA: 18000 mg/m³ (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m³</td>
<td>IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m³ STEL: 30000 ppm STEL: 54000 mg/m³</td>
</tr>
</tbody>
</table>
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

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

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.
Safety Data Sheet (SDS)

**Conditions to Avoid**
Avoid contact with heat, sparks, electric arcs, other hot surfaces and open flames.

**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**

**Eye Contact**
Avoid contact with eyes. Causes severe irritations.

**Skin Contact**
Avoid contact with skin. Irritant to skin and mucous membranes.

**Inhalation**
Irritant to skin and mucous membranes.

**Ingestion**
May be harmful if swallowed.

#### Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>= 4920 mg/kg (Rat)</td>
<td>29000 mg/kg (rabbit)</td>
<td>No information</td>
</tr>
<tr>
<td>79-01-6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Information on physical, chemical and toxicological effects

**Symptoms**
Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity**
May cause cancer.

**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 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
12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene 79-01-6</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
</tbody>
</table>

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.
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**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td></td>
<td></td>
<td>100 pounds</td>
</tr>
<tr>
<td>79-01-6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>79-01-6</td>
<td>92-97</td>
<td></td>
</tr>
<tr>
<td>79-01-6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**US State Regulations**

**California Proposition 65**
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene -79-01-6</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>79-01-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>124-38-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

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

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>1</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>0</td>
<td></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

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