



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

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.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	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 ³ (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m ³ (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m ³	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 30000 ppm STEL: 54000 mg/m ³

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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

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

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

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

Symptoms	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

Carcinogenicity 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

NFPA	Health Hazards	Flammability	Reactivity	Special Hazards
	2	1	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	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