# MATERIAL SAFETY DATA SHEET



Date Issued: 10/14/2008 MSDS No: C 141-R (Aerosol)\_US Date Revised: 09/21/2009

Revision No: 3

Cybersolv 141-R (Aerosol)

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Cybersolv 141-R (Aerosol)

**GENERAL USE:** Cleaning agent

MANUFACTURER DISTRIBUTOR

KYZEN CORPORATION
430 Harding Industrial Drive

Nashville, TN 37211

**Product Stewardship:** 800-845-5524 **Alternate Emergency Phone:** 615-831-0888

24 HR. EMERGENCY TELEPHONE NUMBERS

**CANUTEC (Canadian Transportation) :**(613) 996 - 6666 **CHEMTREC (US Transportation) :**(800) 424 - 9300

# 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW** 

PHYSICAL APPEARANCE: Clear liquid/gas.

**IMMEDIATE CONCERNS:** Contents are under pressure; do not puncture or incinerate.

POTENTIAL HEALTH EFFECTS

**EYES:** May cause irritation. **SKIN:** May cause irritation.

**INGESTION:** May be harmful if swallowed.

**INHALATION:** High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and even death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** May cause irritation. **SKIN:** May cause irritation.

INGESTION: May cause irritation.

**INHALATION:** May be mildly irritating to the eyes and skin. Vapor exposure may cause mild discomfort of the nose and throat. Excessive exposure to vapors may cause dizziness, drunkenness, blurred vision, nausea, vomiting or headaches; may be harmful if ingested.

**ACUTE TOXICITY:** Avoid direct contact with eyes, skin and clothing. May be irritating to eyes and skin; may be harmful if inhaled or swallowed.

CHRONIC EFFECTS: No data established on product as a whole.

CARCINOGENICITY: None expected MUTAGENICITY: None expected

REPRODUCTIVE TOXICITY

**REPRODUCTIVE EFFECTS:** None expected

MEDICAL CONDITIONS AGGRAVATED: May aggravate disorders of the skin, respiratory or nervous systems.

**ROUTES OF ENTRY:** Eyes, skin, inhalation and ingestion

Cybersolv 141-R (Aerosol) Page 2 of 6

**CANCER STATEMENT:** None expected

**IRRITANCY:** May cause irritation.

**WARNING CAUTION LABELS:** Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not eat, drink or smoke in handling areas.

COMMENTS HEALTH: May be irritating to eyes, skin and mucous membranes if inhaled or swallowed.

**HEALTH HAZARDS:** May cause irritation.

# 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Trans-1, 2-dichloroethylene	75 - 100	156-60-5
Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro	0 - 25	138495-42-8
Carbon Dioxide	0 - 25	124-38-9

**COMMENTS:** This preparation is a proprietary blend of substances; no other component is hazardous as defined by OSHA (29CFR1910.1200) or classified as hazardous by ESIS according to Directive 1999/45/EC and its amendments and Annex 1 of Directive 67/548/EEC.

## 4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

**INGESTION:** Get immediate medical attention. If conscious and medical help is not readily available, give 1 to 2 glasses of water and keep at rest. Never attempt to give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air. If necessary, restore and support breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

# 5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None to boiling

FLAMMABLE CLASS: Non-flammable

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Not established

**GENERAL HAZARD:** None expected

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

**OTHER CONSIDERATIONS:** This product is self-extinguishing.

**EXPLOSION HAZARDS:** Not established

FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire.

FIRE FIGHTING EQUIPMENT: Firefighters should have eye protection and wear self-contained breathing apparatus.

FIRE EXPLOSION: None expected

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition vapors will mainly consist of carbon; may contain particles of inorganic oxides and salts.

**COMMENTS:** Contents are under pressure; do not puncture or incinerate.

# 6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spills immediately, observing precautions in Protective Equipment section.

**LARGE SPILL:** Pick up spill on sand, earth or other non-combustible absorbent material. Flush or wipe area with water to remove last traces. Collect wash water/material for disposal. Wear all appropriate personal protective equipment.

# ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid runoff into storm sewers and ditches which lead to waterways.

**LAND SPILL:** Dike area to contain spill. Take precautions necessary to prevent contamination of ground and surface waters. Recover spilled material using an adsorbent like sawdust and sweep into closed containers for disposal. After all visible traces and ignitible vapors

Cybersolv 141-R (Aerosol) Page 3 of 6

have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

**GENERAL PROCEDURES:** Immediately contact emergency personnel and keep unnecessary personnel away. Use suitable protective equipment (Section 8); follow all the fire fighting procedures (Section 5).

**RELEASE NOTES:** See Section 13 for waste disposal.

SPECIAL PROTECTIVE EQUIPMENT: See Section 8 for personal protective equipment.

## 7. HANDLING AND STORAGE

GENERAL PROCEDURES: Follow practices consistent with the handling and use of industrial chemicals.

**HANDLING:** Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not eat, drink or smoke in handling areas.

**STORAGE:** Store in cool, dry, well ventilated areas out of direct sunlight. Keep separate from oxidizers and strong acids. Keep containers tightly closed. Do not reuse empty containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)										
	EXPOSURE LIMITS									
		OSHA PEL		ACGIH TLV		Supplier OEL				
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>			
Trans-1, 2-dichloroethylene	TWA			200						
Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro	TWA					200				
	STEL					400				
Carbon Dioxide	TWA	5000	9000	5000	9000					
	STEL			30000	54000					

ENGINEERING CONTROLS: Use only in a well ventilated area.

## PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear appropriate protective eyeglasses or chemical safety goggles as directed by OSHA's eye and face protection regulations in 29CFR1910.133 or European Standard EN166.

**SKIN:** Wash thoroughly after handling.

**RESPIRATORY:** General ventilation and local exhaust are required to minimize or eliminate exposure to mists and vapors. When used in self-contained, well ventilated industrial cleaning devices, personal respiratory protection is not typically required. For extended direct exposure to mist or vapors, use a NIOSH approved organic respirator as described in OSHA 29CFR 1910.134 or European Standard EN149.

**PROTECTIVE CLOTHING:** No special clothing is needed.

WORK HYGIENIC PRACTICES: Do not eat, drink or smoke when handling industrial materials.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Aerosol

ODOR: Mild
COLOR: Colorless

pH: Neutral

PERCENT VOLATILE: 100

VAPOR PRESSURE: Not determined VAPOR DENSITY: Not determined BOILING POINT: 47°C (116°F) Cybersolv 141-R (Aerosol) Page 4 of 6

FLASHPOINT AND METHOD: None to boiling

**SOLUBILITY IN WATER:** Negligible

SPECIFIC GRAVITY: 1.264

(VOC): 1175.130 g/L + propellant EPA Method 24

Notes: Vapor Pressure of VOC Components: 200-350 mmHg at 20C

**COMMENTS:** These physical properties are typical values based on material tested but may vary from sample to sample. These values should not be construed as guaranteed analysis of any specific lot or as specifications for the product.

## 10. STABILITY AND REACTIVITY

STABLE: Yes

**HAZARDOUS POLYMERIZATION: No** 

CONDITIONS TO AVOID: Heat, sparks, flame or other sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition vapors will mainly consist of carbon; may contain particles of inorganic oxides and salts.

**INCOMPATIBLE MATERIALS:** Strong acids and oxidizers

## 11. TOXICOLOGICAL INFORMATION

**EYE EFFECTS:** May cause irritation. **SKIN EFFECTS:** May cause irritation.

CHRONIC: No data established on product as a whole.

**CARCINOGENICITY** 

IARC: None
NTP: None
OSHA: None

**REPEATED DOSE EFFECTS:** No data established on product as a whole.

**IRRITATION:** No data established on product as a whole. **CORROSIVITY:** No data established on product as a whole.

**SENSITIZATION:** None expected

**REPRODUCTIVE EFFECTS:** No data established on product as a whole. **TERATOGENIC EFFECTS:** No data established on product as a whole.

MUTAGENICITY: No data established on product as a whole.

# 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data established on product as a whole.

**ECOTOXICOLOGICAL INFORMATION:** No data established on product as a whole. **BIOACCUMULATION/ACCUMULATION:** No data established on product as a whole.

# 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Use approved treatment transporters and disposal sites.

EMPTY CONTAINER: Keep containers tightly closed when not in use; do not reuse empty containers.

EUROPEAN WASTE CATALOGUE: Number 01405: Waste organic solvents, refrigerants and foam/aerosol propellants.

# 14. TRANSPORT INFORMATION

# DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Aerosol: Non-flammable gas.

PRIMARY HAZARD CLASS/DIVISION: 2.2

UN/NA NUMBER: UN1950

Cybersolv 141-R (Aerosol) Page 5 of 6

PACKING GROUP: None

PLACARDS: Non-flammable gas

LABEL: ORM-D

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Aerosol: Non-flammable gas.

**UN NUMBER: UN1950** 

KEMLER NUMBER: 220/1950

HAZARD CLASS: 2.2 PACKING GROUP: None

LABEL: ORM-D
AIR (ICAO/IATA)

SHIPPING NAME: Aerosol: Non-flammable gas.

UN/NA NUMBER: UN1950

PRIMARY HAZARD CLASS/DIVISION: 2.2

PACKING GROUP: None

PLACARDS: Non-flammable gas

LABEL: ORM-D

COMMENTS: Harmonized Code: US 3402.90.5030 and MY 3402.90.990 Cleaning Preparations

# 15. REGULATORY INFORMATION

#### UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute

FIRE: No PRESSURE GENERATING: Yes REACTIVITY: No ACUTE: Yes CHRONIC: No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

**EMERGENCY PLAN:** None

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** Trans-1,2-dichloroethylene (156-60-5)

**CERCLA RQ:** 1000#

**CLEAN AIR ACT** 

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: None

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None

**CALIFORNIA PROPOSITION 65:** None

RCRA STATUS: None

OSHA HAZARD COMM. RULE: None

**CLEAN WATER ACT:** None

NATIONAL RESPONSE CENTER: None

**CARCINOGEN:** None

# 16. OTHER INFORMATION

**REASON FOR ISSUE:** New format **APPROVED BY:** Kyzen Health & safety

PREPARED BY: JAQ

Cybersolv 141-R (Aerosol) Page 6 of 6

**REVISION SUMMARY:** Revision #: 3. This MSDS replaces the May 18, 2009 MSDS. Any changes in information are as follows: In Section 1: MSDS Number

# HMIS RATING HEALTH: PHYSICAL HAZARD: PERSONAL PROTECTION:



MANUFACTURER DISCLAIMER: The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator and blender, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this document. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this document. However, no representation, warranty or guarantee is made as to the accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.

Copyright 2009 Kyzen Corporation. All rights reserved.