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MICROCARE CORPORATION
 595 John Downey Drive, New Britain, Connecticut, 06051, USA

Genesolv 2004
 #MCC-G2004, MCC-G04G,
 MCC-G04P, MCC-G04D, MCC-G04C, MCC-G04CHP

Preparation Date: 02/02/07
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MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: Genesolv 2004 Solvent; #MCC-G2004, #MCC-G04C, #MCC-G04CHP (aerosol), #MCC-G2004G (one gallon), #MCC-G04P (five gallons), #MCC-G04D (55 gallons)
Chemical Family: A azeotropic blend of HCFC and alcohol. In the aerosol form, an HFC propellant is used.
Packaged By: MicroCare Corp., 595 John Downey Drive, New Britain, CT, 06051, USA CAGE/FSCM: OATV9
Emergency Telephone: CHEMTREC (800) 424-9300

2. Composition/Information on Ingredients

Chemical Name	Wt.%Range	TLV Units
Genesolv 2004	80.0	See Section 8
Tetrafluoroethane CAS #811-97-2	20.0	See Section 8
Hazardous Mixtures of Liquids, Solids or Gases:		
Dichlorofluoroethane CAS # 1717-00-6	95.8	See Section 8
Methanol CAS # 67-56-1	3.9	See Section 8
Nitromethane CAS # 75-52-5	0.3	See Section 8

All components of this material are listed on the TSCA inventory.

3. Hazard Identification

Emergency Overview: Colorless liquid with a slight ethereal odor. This product is nonflammable. Liquid will irritate eyes and skin under repeated or prolonged exposure. Product vapors displace air and can cause asphyxiation especially in confined spaces.
Potential Health Effects:
Eyes: Moderate irritation. Persons wearing contact lenses should wear chemical protective safety glasses when exposed to this product.
Skin: For repeated contact: dry/chapped skin, risk of chronic dermatitis.
Ingestion: Harmful if swallowed. Irritating to the mouth, throat and stomach.
Inhalation: Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death without warning.
Medical Conditions Aggravated by Exposure: Preexisting disease of the heart, lungs, skin and eyes.

4. First Aid Measures

Eyes: Immediately flush with water. Remove any contact lenses and continue flushing for 15 minutes, lifting eyelids occasionally until no evidence of the chemical remains. If irritation develops or persists call a physician.
Skin: Wash promptly with soap and water. Remove contaminated clothing and shoes and replace with clean clothing.
Ingestion: DO NOT induce vomiting. Immediately give two glasses of water. Never give anything by mouth to an unconscious person. Call a physician.
Inhalation: Remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

5. Firefighting Measures

Flash Point: Not flammable per Tag Closed Cup (ASTM D 56)
Flammable Limits in Air: Not Determined
Extinguishing Media: CO₂, dry chemical, water spray, water fog
Special Firefighting Procedures: Evacuate personnel. Wear self contained breathing apparatus (SCBA) and full protective equipment. Containers generate pressure when heated causing violent bursting and dangerous propelling of container. May form toxic decomposition products above 480° F/ 250° C.

6. Accidental Release Measures

Spill or Leak: Evacuate area, absorb spilled liquid with commercial, nonflammable absorbent i.e. sand, vermiculite. Remove unprotected personnel. Protected personnel should remove ignition sources and shut off fire sources. Provide ventilation. Shovel (spark proof) absorbent material into drums and close. Do not flush to sewer.

7. Handling and Storage

Avoid breathing vapors or mist. Use only with adequate ventilation. Avoid repeated or prolonged contact with eyes, skin or clothing. Wash thoroughly after handling. Do not store in direct sunlight. Store in cool dry place, away from heat, sparks or flames which may generate toxic decomposition products. Vapors are heavy and may concentrate in low poorly ventilated areas. Keep away from children.

8. Exposure Controls/Personal Protection

Respiratory Protection: Use only with adequate ventilation. Keep container tightly closed. Use approved NIOSH self-contained or supplied air respirators for emergencies and in situations where air may be displaced by vapors.
Eye Protection: Use chemical protective safety glasses.
Protective Clothing: Where there is potential for skin contact, use appropriate impervious gloves, apron, pants and jacket.
Exposure Guidelines: Applicable Exposure Limits.
Dichlorofluoroethane:
 PEL (OSHA) None Established
 AEL (Honeywell) 400 ppm, 8 & 12 hr. TLV
 TLV (ACGIH) None Established
Methanol:
 PEL (OSHA) 200 ppm TWA
 TLV (ACGIH) 200 ppm TWA, 250 ppm STEL
Nitromethane:
 PEL (OSHA) 100 ppm TWA
 TLV (ACGIH) 100 ppm TWA
Tetrafluoroethane:
 AEL (OSHA) 1000 ppm TWA
 PEL (OSHA) 1000 ppm STEL
 TLV (ACGIH) 1000 ppm TWA

NFPA, NPCA-HIMIS RATING:

Health	1
Flammability	0
Reactivity	1

Personal Protection rating to be supplied by user depending on use conditions.

9. Physical and Chemical Properties

Physical Form: Clear colorless liquid
Odor: Slight Ethereal
Boiling Point: 84.9° F/29° C
Solubility in Water: 0.17 weight % @77° F/25° C
% Volatile by Weight: 100
Vapor Pressure: 10.06 psia @ 70° F/20° C.
Vapor Density (air=1): >1
Evaporation Rate (Ether = 1):>1

10. Reactivity

Chemical Stability: Material is stable.

Hazardous Polymerization: Will not occur.

Incompatibilities: Alkali or alkaline earth metals powdered Al, Zn, Be, Na, Mg, etc. Incompatible w/strong bases such as NaOH, KOH, etc.

Decomposition Products: Decomposes with heat. High temperatures (open flame, glowing metal surfaces, etc.) can decompose forming hydrofluoric acid and possibly carbonyl fluoride. This material is incompatible with strong bases and can react to form salts of hydrofluoric acid and unsaturated compounds of unknown toxicity.

11. Toxicological Information

Toxicity information for the individual components of this product are listed below:

Dichlorofluoroethane: No Federal OSHA PEL (29 CFR 1919.1000) or ACGIH TLV Values are established for this chemical. An interim recommended maximum exposure limit of 500 ppm has been established by Honeywell, Inc. Acute Inhalation: Albino Rats (Sprague-Dawley) 4 hr - LC50 = 62,000* ppm. Subchronic Inhalation: Increase cholesterol/decrease body weight 20,000 ppm; NOEL 8,000 ppm. Oral: nontoxic, > 5 gm/Kg bodyweight. Cardiac Sensitization Threshold: 10,000 ppm. Teratology, rat-maternal and fetal tox = 20,000 ppm; NOEL = 8,000 ppm. Teratology, rabbit-slight body weight loss = 4,200 ppm; NOEL = 1,400 ppm. Reproduction (2 generation) Rat: Reduced fertility and reduced body weight = 20,000 ppm; NOEL = 8,000 ppm.
 Genetic Studies: Ames Assay - Not Active. CHO Call (gas phase) - positive- up to 10%. CHO Cell (liquid phase) - not active - up to 35%. In Vivo mouse micronucleus - not active - up to 36,000 ppm. Delayed (Subchronic & Chronic) Effects: Subchronic: Fischer 344 rats - slightly toxic - 20,000 ppm* Chronic Inhalation : 20,000 ppm - interim report*. Male rats exposed by inhalation to 5,000 ppm or greater (6 hours/day, 5 days/week for 2 years) were found to have a small but statistically significant number of late developing benign testicular tumors. NOEL 1,500 ppm.
Methanol: Federal OSHA PEL is 200 ppm (8 hour TWA) (skin) and Short Term Exposure Limit (STEL) of 250 ppm. ACGIH Threshold Limit Value is 200 ppm (8 hour TWA) (skin) and STEL of 250 ppm.
Nitromethane: Federal OSHA PEL is 100 ppm (8 hour TWA). ACGIH TLV is 100 ppm (8 hour TWA).

Carcinogenicity: None of the components present in this material are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

12. Ecological Information

Aquatic Toxicity:
 Not determined

13. Disposal Considerations

Waste Disposal: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

14. Transportation Information

Aerosol Packaging:

Ground Transport: Consumer Commodity ORM-D

Air Transport: Aerosols Nonflammable NOS, UN1950, Class 2.2, Pkg.Group N/A, Pkg.Instr.203 Hazard Label: Nonflammable Gas

Non-Aerosol Packaging:

Ground Transport: Not Hazardous/Not Regulated

Air Transport: Not Hazardous/Not Regulated

15. Regulatory Information

Section 313 Supplier Information: This material contains the following toxic chemicals subject to the emergency reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40 CFR 372:

CAS#	Chemical Name	% by Weight
1717-00-6	Dichlorofluoroethane	91.0
67-56-1	Methanol	3.6

This information must be included in all MSDSs that are copied and distributed for this material.

California VOC Data: This material contains 103 grams total VOC per liter. Contents packaged 340 grams per unit aerosol container.

Title III Hazard Communications Sections 311, 312

Acute	Yes
Chronic	No
Fire	No
Reactivity	No
Pressure	No

Lists:

SARA Extremely Hazardous Substance	No
CERCLA Hazardous Substance	No
SARA Toxic Chemicals	No

16. Other Information

For additional information, contact Tech Support at MicroCare: Telephone (860) 827-0626 or email: techsupport@microcare.com