



MATERIAL SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

CP Adhesives: 11047 Lambs Lane Newark, OH 43055
Emergency phone: 800-424-9300 (Chemtrec) 4 letter i.d.= PLOT
For Orders or Technical Information: 800-454-4583

Product Name/Code: CP-2104

Issue Date: 07-10-2006

Section 2: HAZARDS IDENTIFICATION

NFPA ratings for this product are: H - 1 F - 0 R - 0

EMERGENCY OVERVIEW

Appearance/Odor: Colorless liquid with ethereal odor.

Hazards of product: WARNING!
CAUSES EYE IRRITATION

POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure:

Eye Contact: Excess redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

Skin Contact: Brief contact is not irritating. Prolonged contact causes mild to moderate local redness and swelling.

Skin Absorption: No evidence of harmful effects from available information.

Swallowing: Slightly toxic. May produce signs of intoxication characterized by incoordination, dizziness, drowsiness, headache, nausea, mental confusion, possibly slurred speech, and stupor, depending on the quantity of material ingested.

Inhalation: Short-term harmful health effects are not expected from vapor generated at ambient temperature.

Chronic, Prolonged or Repeated Overexposure:

Effects of Repeated Overexposure: Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material.

Other Effects of Overexposure: None currently known.

Medical Conditions Aggravated by Exposure:

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

See Section 11 for toxicological information and additional information about potential health effects.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#
Diethylene Glycol Monoethyl Ether	111-90-0

Section 4: FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water and continue washing for several minutes. Remove contact lenses, if worn. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse.

Inhalation: Move to fresh air. Obtain medical attention if symptoms persist.

Ingestion (Swallowing): If patient is fully conscious, give two glasses of water. Induce vomiting. This should be done only by medical or experienced first-aid personnel. Obtain medical attention.

Notes to Physician: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5: FIRE FIGHTING MEASURES

Flammable Properties – Refer to Section 9, Physical and Chemical Properties

Suitable Extinguishing Media: Extinguish fires with water spray or apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fire. Use carbon dioxide or dry chemical media for small fires.

Fire Fighting Procedures: Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.

Special Protective Equipment for Firefighters: Use self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: See Section 8 – Engineering Controls.

This material may produce a floating fire hazard in extreme fire conditions.

Hazardous Combustion Products: Burning can produce the following products: Carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: This material is a water pollutant. Do not let spilled or leaking material enter waterways.

Steps to be taken if Material is Released or Spilled: Small spills can be flushed with large amounts of water, larger spills should be collected for disposal.

Section 7: HANDLING AND STORAGE

General Handling

Avoid contact with eyes.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

FOR INDUSTRY USE ONLY.

Ventilation

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Use only with adequate ventilation.

Storage

Glycol ethers as a family of solvents can be stored in carbon steel. Stainless steel or high baked, phenolic-lined tanks may be considered for critical applications sensitive to slight discoloration or trace iron

contamination. Piping can be made of the same material as the storage tank. A centrifugal pump is suitable for transfer services. Butyl rubber or EPDM can be used for gaskets and packing. NOTE: It is not recommended using aluminum, copper, galvanized iron, galvanized steel, Viton, neoprene, nitrile or natural rubber with glycol ethers. Glycol ethers do not present a significant flammability hazard at normal storage temperatures. They have relatively low vapor pressures, viscosities and freezing points.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	Exposure Limits	Skin. Form
Diethylene Glycol Monoethyl Ether	25 ppm TWA8 AIHA WEEL	

In the Exposure Limits Chart above, if there is no specific qualifier (i.e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.

A "Yes" in the Skin Column indicates a potential significant contribution to overall exposure by the cutaneous (skin) route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance. A "Blank" in the Skin Column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.

Engineering Controls: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate. If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

Process Hazard: Sudden release of hot organic chemical vapor or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapor."

Standard (ASTM) test values do not predict many real life situations. Autoignition is the result of a gas-phase runaway reaction which occurs when the heat generation rate inside a given volume of reactant exceeds that of heat loss rate. The heat balance determining autoignition is therefore dependent on factors such as the reactant pressure plus the volume and geometry of any container. The ASTM standard AIT test uses a small (500 ml), heated, open-necked glass flask in which autoignition always occurs at atmospheric pressure. The AITs determined using this test can be appreciably greater than those that might be experienced in large commercial equipment, especially if elevated pressures are involved. Any operation at temperatures close to or above the flash point should be reviewed by the appropriate expert (e.g., safety engineer, chemist). When the ASTM autoignition temperature is required it can be obtained by calling the company.

Personal Protection: Where air contaminants can exceed acceptable criteria, use NIOSH (42 CFR Part 84) approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use safety glasses or monogoggles. Use polyvinyl chloride coated protective gloves. Other protective equipment: Eye Bath, Safety Shower.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration.

For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure airline with auxiliary self-contained air supply.

Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Use only with adequate ventilation.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Colorless

Odor: Ethereal

Odor Threshold: Not available.

Physical State: Liquid.

pH: No test data available.

Freezing Point: -44°C -46°F

Melting Point: Not applicable.

Boiling Point, 760 mm Hg: 201°C 393°F

Flash Point-Closed Cup: 102°C 215°F Pensky-Martens Closed Cup ASTM D 93

Evaporation Rate (Butyl Acetate=1): 0.01

Flammable Limits in Air:

Lower 1.2%(V) 275°F, 135°C

Upper 23.5%(V) 360°F, 182.2°C

Vapor Pressure: 0.07 mmHg 20°C

Vapor Density (air=1): 4.6

Specific Gravity (H₂O=1): 0.990 20°C/20°C

Solubility in Water (by weight): 100% 20°C

Octanol/Water Partition Coefficient – Measured: -0.54

Auto-ignition Temperature: No test data available.

Percent Volatiles: 100 Wt%

Section 10: STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Do not distill to dryness. Avoid excessive temperature or prolonged reflux, such as in batch distillations.

Incompatible Materials: Strong alkalis. High temperatures in the presence of strong bases. Acids. Strong oxidizing agents.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur

Section 11: TOXICOLOGY INFORMATION

Acute Toxicity

Peroral

Rat; male; LD₅₀=6.70 (5.72-7.85) ml/kg; slope = 12.9

Time to Death: 1 to 2 days.

Major Signs: sluggishness, lacrimation, unsteady gait, prostration, labored breathing, swollen eyelids, emaciation, tremors, comatose (one), genital discharge

Gross Pathology – Decedents: urinary bladder liquid-filled

Gross Pathology – Survivors: Nothing remarkable

Peroral

Rat; female; LD50=6.50 (4.72-8.95) ml/kg; slope=5.60

Time to Death: 3.5 hr to 2 days.

Major Signs: sluggishness, lacrimation, unsteady gait, prostration

Gross Pathology – Decedents: discolored lungs, stomach and intestines liquid filled

Gross Pathology – Survivors: Nothing remarkable.

Percutaneous

Rabbit: male: LD50=11.3 (6.43-19.9) ml/kg; slope = 3.89; 24 h occluded.

Time to Death: 1 to 2 days.

Major Signs: sluggishness, unsteady gait, prostration

Irritation: erythema, edema

Gross Pathology – Decedents: thoracic cavity liquid-filled (one)

Gross Pathology – Survivors: Nothing remarkable

Percutaneous

Rabbit; female; LD50=8.57 (5.80-12.7) ml/kg; slope = 4.96; 24 h occluded

Time to Death: 1 to 3 days

Major Signs: sluggishness, unsteady gait

Irritation: erythema, edema

Gross Pathology – Decedents: discolored livers, stomach and intestines gas-filled, thoracic cavity and abdominal cavity liquid-filled (one)

Gross Pathology – Survivors: Nothing remarkable

Inhalation

Substantially saturated vapor studies, 6 hour exposure dynamic generation Rat; male and female

Mortality: 0/5

Gross Pathology: Nothing remarkable.

Irritation

Skin: Rabbit; 4 h occluded; 0.5 ml

Results: no irritation

Eye: Rabbit; 0.1 ml

Results: moderate iritis, moderate conjunctival irritation, minor diffuse corneal injury, healed by 14 days.

Eye: Rabbit; 0.01 ml

Results: minor conjunctival irritation, healed by 24 hours

SENSITIZATION (ANIMAL AND HUMAN STUDIES)

Diethylene glycol monoethyl ether (ethylene glycol free) was not a sensitizer in the human patch and the guinea pig maximization tests.

CHRONIC TOXICITY AND CARCINOGENICITY

In a 2-year oral study in rats. 0.20 g/kg/day of diethylene glycol monoethyl ether (ethylene glycol free) administered in water was considered to be the NOEL.

Section 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

BOD (% Oxygen consumption)

Day 5	Day 10	Day 15	Day 20	Day 28/30
17%	71%		87%	

Modified Sturm Test (OECD 301B)(% CO₂ evolved)

Day 5	Day 10	Day 15	Day 28
			100%

Ecotoxicity

Toxicity to Micro-organisms

Bacterial Inhibition; IC₅₀

Result value: >5000 mg/L

Toxicity to Aquatic Invertebrates

Cladoceran; 48 h; LC₅₀

Result value: >10000 mg/L

Toxicity to Aquatic Invertebrates

Cladoceran; 48 h; LC₅₀

Result value: 19800 mg/L

Toxicity to Aquatic Invertebrates

Brine shrimp; 24 h; LC₅₀

Result value: <10000 mg/L

Toxicity to Fish

Fathead Minnow; 96 h; LC₅₀

Result value: >10000 mg/L

Toxicity to Fish

Fathead Minnow; 96 h; LC₅₀

Result value: 23200 mg/L

FURTHER INFORMATION

Chemical Oxygen Demand (COD) – measured: 1.74 mg/mg

Theoretical Oxygen Demand (THOD) – calculated: 1.90 mg/mg



Octanol/Water Partition Coefficient – Measured: -0.54

Section 13: DISPOSAL CONSIDERATIONS

Disposal: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. This company has NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/information on ingredients). FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Waste water treatment system.

Section 14: TRANSPORTATION INFORMATION

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

US DOT (ground)

NON-BULK

Proper shipping name: Not Regulated

BULK

Proper Shipping Name: Not Regulated

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: REGULATORY INFORMATION

TSCA: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA – DOMESTIC SUBSTANCES LIST (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (Emergency Planning and Community Right to Know Act) SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Component	CAS#
Glycol Ethers	Not available

Section 16: OTHER INFORMATION

Comprehensive Environmental Response compensation, and Liability Act of 1980 (CERCLA) Section 103

This product contains the following substances subject to CERCLA Section 103 reporting requirements and are listed in 40 CFR Part 302.4

Component	CAS#
Ethylene glycol	107-21-1
Ethylene glycol monoethyl ether	110-80-5



In addition, this product contains other Glycol Ether(s) which, although included as a broad category on the CERCLA hazardous substance list has not been assigned a reportable quantity.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (Emergency Planning and Community Right to Know Act) SECTION 302

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (Emergency Planning and Community Right to Know Act) SECTIONS 311 AND 312

- Delayed (Chronic) Health Hazard: Yes
- Fire Hazard: No
- Immediate (Acute) Health Hazard: Yes
- Reactive Hazard: No
- Sudden Release of Pressure Hazard: No

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)

The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

PENNSYLVANIA (Worker and Community Right to Know Act): PENNSYLVANIA HAZARDOUS SUBSTANCES LIST AND/OR PENNSYLVANIA ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS#
Glycol Ethers	Not available

PENNSYLVANIA (Worker and Community Right to Know Act): PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST:

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical (s) known to the State of California to cause birth defects or other reproductive harm.

Component	CAS#
Ethylene glycol monoethyl ether	110-80-5

CALIFORNIA SCAQMD RULE 443.1 (South Coast Air Quality Management District Rule 443.1 Labeling of Materials Containing Organic Solvents)

VOC: Vapor pressure 0.07 mmHg @ 20°C
988 g/l
988 g/l less water and less exempted solvents

This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

Recommended Uses and Restrictions

For Industry Use Only

LEGEND

Bacterial/NA	Non Acclimated Bacteria
F	Fire
H	Health
IHG	Industrial Hygiene Guideline
N/A	Not available
NFPA	National Fire Protection Association
O	Oxidizer
R	Reactivity
TS	Trade Secret
VOL/VOL	Volume/Volume
W	Water Reactive
W/W	Weight/Weight

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