

## MATERIAL SAFETY DATA SHEET

### SECTION I: PRODUCT IDENTIFICATION

Product Name	<b>HEAD CLEANER – CH500</b>
Chemical Family	<b>Alcohol</b>
Supplier	<b>DEK Canada Inc.</b> 1928 St. Regis Blvd, Dorval, PQ, H9P 1H6 <b>TEL.: 514-685-5800 FAX: 514-685-5804</b>
Product Use	<b>Tape head cleaner</b>
Product chemical name	<b>Ethyl alcohol or Ethanol</b>

### SECTION IA: FIRST AID MEASURES

Eye Contact	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, or until the chemical is removed, while holding the eyelid(s) open. Obtain medical attention immediately
Skin Contact	Flush contaminated area with lukewarm, gently running water for at least 20 minutes or until the chemical is removed. Under running water, remove contaminated clothing. If irritation persists, obtain medical advice. Completely decontaminate clothing before reuse or discard
Inhalation	Remove source of contamination or have victim move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention immediately
Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink two glasses of water. Obtain medical attention immediately

### SECTION II: CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS

Name	CAS #	%	Exposure limits LD/50 LC/50
Ethanol	64-17-5	60 – 100	7060 mg/kg (oral, rat) 39 g/m <sup>3</sup> 4 hours (mouse)

### SECTION III: PHYSICAL AND CHEMICAL PROPERTIES

Physical state, color and odour	White liquid with an alcohol odour
Odour threshold	N / A
pH	N / A
Boiling point	75°C
Melting/freezing point	N / A
Vapour pressure	12.9 kPa
Solubility in water	N / A
Coefficient of oil/water distribution	N / A
Specific gravity or density (water = 1, at 4°C)	0.79
Vapour density	Heavier than air
Evaporation rate	N / A
Volatility %	N / A

## SECTION IV: FIRE FIGHTING MEASURES

Flammable Liquid	This product burns under normal handling conditions. Prolonged or excessive inhalation may cause mild central nervous system depression. May cause headache, nausea, dizziness, vomiting and incoordination. Prolonged or excessive ingestion may cause aspiration of liquid into the lungs and cause chemical pneumonitis or even death. IRRITANT. Causes moderate to severe eye irritations. May cause light skin irritations. POSSIBLE MUTAGEN – may cause genetic damage, based on animal information
Flash point (Method)	12°C (53.6°F) Closed cup
Lower flammable limit (% by volume)	6
Upper flammable limit (% volume)	36.5
Sensitivity to mechanical impact	Not sensitive
Sensitivity to static discharge	No details available, possibly sensitive
Auto-ignition temperature	363° (685.4°F)
Suitable extinguishing media:	Carbon dioxide, dry chemical powder and alcohol foam
Special fire-fighting procedures/equipment	During a fire, irritating/toxic smoke and fumes may be generated. Vapours can accumulate in confined spaces, resulting in a toxicity and flammability hazard. A self-contained breathing apparatus is required for fire-fighting personnel to protect themselves from toxic products produced during the combustion. Closed containers may explode with the pressure building from the heat. Use water to cool fire exposed containers and prevent this situation

Hazardous combustion products	Carbon monoxide, carbon dioxide and other irritant gases, which may include toxic constituents
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## SECTION V: REACTIVITY AND STABILITY DATA

Stability and reactivity	Stable at room temperature, in normal handling and storage conditions
Polymerisation	Hazardous polymerisation will not occur
Conditions to avoid	Avoid STRONG OXIDIZING AGENTS. Keep away from static discharge, sparks, open flames, heat and other ignition sources
Materials to avoid	Avoid STRONG OXIDIZING AGENTS
Hazardous decomposition products	None

## SECTION VI: TOXICOLOGICAL INFORMATION

Ingredient	OSHA PEL		ACGIH TLV		Other exposure limits
	TWA	STEL	TWA	STEL	
Ethanol	1000 ppm	N/A	1000 ppm	N/A	N / A
Primary entry route(s)	Skin, eye, ingestion and inhalation				
Skin sensitization	N / A				
Respiratory tract sensitization	N / A				
Exposure limits	N / A for the product				
Effects of short-term (acute) and long-term (chronic) exposure:					
Inhalation	Prolonged or excessive inhalation may cause mild central nervous system depression. May cause headache, nausea, dizziness, vomiting and incoordination				
Skin	May cause slight skin irritations. Prolonged or repeated exposure may cause dermatitis (dry skin)				
Ingestion	Prolonged or excessive ingestion may cause aspiration of liquid into the lungs and cause chemical pneumonitis or even death				
Eye	Causes moderate to severe eye irritations				
Carcinogenicity	No ingredient listed by IARC, ACGIH, NTP OR OSHA as a carcinogen				
Teratogenicity	Ethanol may cause genetic damage				
Mutagenicity	Ethanol may cause genetic damage				
Reproductive effects	Ethanol may cause genetic damage				
Synergistic materials	N / A				

## SECTION VII: ACCIDENTAL RELEASE MEASURES / WASTE DISPOSAL

Personal precautions	Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Remove all ignition sources. Remove or isolate flammable and combustible materials. Wear adequate personal protective equipment (See Section X). Ventilate area
Spill response/Cleanup	Stop the flow if it can be done safely. Keep materials which can burn away from spilled material. Prevent material from entering waterways, sewers or confined spaces. SMALL SPILLS: Put material in suitable, covered, labelled containers. Flush area with water. LARGE SPILLS: Contain spill with earth, sand, or absorbent material which does not react with spilled material. Place in suitable, covered, labelled containers. Contact fire and emergency services and supplier for advice. Contaminated absorbent material may pose the same hazards as the spilled product
Environmental precautions	For large spills, notify government occupational health and safety and environmental authorities. Confine spill, preventing it from entering sewer lines or waterways. Dispose of as per local, state and federal regulations
Handling & storage conditions for disposal	Store material for disposal as indicated in Handling and Storage (Section VIIA)
Methods of disposal	Review federal, provincial and local government requirements prior to disposal. Disposal by controlled incineration or secure landfill may be acceptable

## SECTION VIIA: HANDLING AND STORAGE

Safe handling procedures	FLAMMABLE LIQUID. IRRITANT. Before handling, it is very important that engineering controls are operating and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Do not use near welding operations, flames or hot surfaces. Ensure proper ventilation after sealed area has been treated. Avoid generating vapours/dusts. Inspect containers for leaks before handling. Label containers appropriately. Keep containers closed when not in use. Assume that empty containers contain residues which are hazardous. Do not use with incompatible materials such as strong oxidizing agents. Grounding and bonding may be required depending on the size of the container
Storage requirements	FLAMMABLE LIQUID. IRRITANT. Store in a cool, dry and well-ventilated area, away from heat and ignition sources. Keep storage area clear of ignition sources. Store away from incompatible materials such as strong oxidizers. Inspect all incoming containers to make sure they are properly labelled and not damaged. Store in suitable, labelled containers. Keep containers tightly closed. Empty containers may contain hazardous residues. Keep absorbents for leaks and spills readily available. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area. Grounding and bonding may be required depending on the size of the container

## SECTION VIII: TRANSPORTATION INFORMATION

Transportation of Dangerous Goods (TDG):	
Shipping description	This product is regulated according to TDG
Proper shipping name	ETHANOL
Class	3
Identification number	UN1170
Packing group	II
Special case	Product can also be shipped as a LIMITED QUANTITY/CONSUMER COMMODITY according to TDG Section 1.17

## SECTION IX: REGULATORY INFORMATION

WHMIS information	Product is regulated according to the Controlled Product Regulations (CPR) in Canada	
<b>This product has been classified in accordance with the hazard criteria of the Controlled Products regulations (CPR) and this MSDS contains all the information required by the CPR</b>		
Hazardous Materials Identification System (HMIS)	HEALTH: 2* REACTIVITY: 0 HAZARD: 1 Slight 2 Moderate 3 Serious	Chronic FLAMMABILITY: 3 PERSONAL PROTECTION: Section X 0 Minimal 2 Moderate 4 Severe
National Fire Protection Association (NFPA)	HEALTH: 2 REACTIVITY: 0 HAZARD: 1 Slight 2 Moderate 3 Serious	FLAMMABILITY: 3 PERSONAL PROTECTION: Section X 0 Minimal 2 Moderate 4 Severe

## SECTION X: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls	None required under normal handling conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits
Respiratory Protection	None required under normal handling conditions. Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirator if the exposure limits are unknown
Protective Clothing/Equipment	Wear chemically protective gloves (impervious), and if necessary boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective chemical safety goggles or in a splash environment in combination with a face shield. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. Separate contaminated work clothes from street clothes. Launder before reuse
Comments	Avoid contact with skin and eyes. Avoid breathing vapours/dusts. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material

## SECTION XI: PREPARATION DATA OF MSDS

Prepared by	DEK Canada Inc.
Verified by	DEK Canada Inc.
Date	April 24, 2006

**CAUTION:** The information contained herein is accurate to the best of our knowledge. However, the above named supplier does not assume any liability whatsoever for the accuracy or completeness of the information. Final determination of suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, all materials may present unknown hazards and should be used with caution.