

CHEMTRONICS® Technical Data Sheet

TDS # 820

Head Cleaner™ II

PRODUCT DESCRIPTION

Head Cleaner™ II is a highly effective cleaner that removes oxides, dust and other contaminants from magnetic tape/disk heads and tape transport mechanisms. This high-performance cleaner reduces head wear and improves lost performance.


- Low surface tension
- Effective cleaning agent
- Removes all types of tape residues, oxides, oils and contaminants
- Reduces head wear and improves performance
- Evaporates quickly and leaves no residue
- Safe on most plastics and elastomers
- Contains no CFCs or HCFCs

TYPICAL APPLICATIONS

Head Cleaner™ II effectively removes oxides and dust from:

- Commercial Tape, Record/Players
- Industrial Tape, Record/Players
- Compact Disk Laser Readers
- Film Cameras
- Video Cameras
- Magnetic Pickups
- Optical Pickup Assemblies
- Memory Systems
- Tape Transport Mechanisms

TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

Boiling Point	180°F
Vapor Density (air=1) @ 100°F	>1 >1
Solubility in Water	100%
Specific Gravity (water = 1)	0.79
Evaporation Rate (Ether = 1)	<1
Appearance	Clear, Colorless Liquid
Surface Tension (dynes/cm @25°C)	21.1
Flash Point (TCC)	53°F
Non-Volatile Residue	14 ppm
Kauri-Butanol (KB) Number	80
Shelflife	2 years after opening
RoHS/WEEE Status	

COMPATIBILITY

Head Cleaner™ II is generally compatible with most materials used in commercial /industrial tape systems, film/video cameras, magnetic/optical pickup assemblies and VCRs. As with any chemical product used, component compatibility must be determined on a non-critical area prior to use.

<u>Material</u>	<u>Compatibility</u>
Aluminum	Excellent
Buna-N	Good
CPVC	Excellent
Epoxy	Excellent
Neoprene	Good
Noryl [®]	Excellent
Phenolic	Excellent
Cross-Linked PE	Good
Polycarbonate	Poor
Polypropylene	Good
Polystyrene	Poor
PVC	Fair
Teflon [™]	Excellent
Tygon [™]	Good
Viton [™]	Excellent

Performance	
<u>Evaporation Time</u>	
Head Cleaner II	27 sec.
Isopropyl Alcohol	51 sec.

ENVIRONMENTAL IMPACT DATA

ENVIRONMENTAL IMPACT DATA			
CFC	0.0%	VOC	100%
HCFC	0.0%	HFC	0.0%
CL Solv.	0.0%	ODP	0.0

CFC, HCFC, CL. SOLV., VOC, and HFC numbers shown are the content by weight. Ozone depletion potential (ODP) is determined in accordance with the Montreal Protocol and U.S. Clean Air Act of 1990. The ODP of this product is 0.0. It is the sum of the ODP of the substances that may contribute to the depletion of stratospheric ozone, based upon the weight of each substance in the product's formulation.

NOTE:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly.

CHEMTRONICS[®] does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

USAGE INSTRUCTIONS

For industrial use only.

Read MSDS carefully prior to use.

No special surface preparation is required prior to applying Head Cleaner[™] II. For optimum results, apply using Chamois Tips[™] to quickly and safely remove oxides, dust and other contaminants. For aerosol, spray 4-6" from surface. Wash parts from top to bottom, allowing the liquid to flush away oxides and dirt. For precise application use attached extension tube.

AVAILABILITY

ES820L

8 fl. oz. Liquid

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Information: 800-TECH-401

Product Identification

HEAD CLEANER™ II (Liquid)

Product Code: ES820L, ES420L, ES820LC

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Product Ingredient Information	CAS#	Wt. % Range
Isopropanol	67-63-0	95.0-99.0
Hexamethyldisiloxane	107-46-0	0.1-1.0
n-propyl acetate	109-60-4	1.0-5.0

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with strong ethereal odor. This product is flammable. Liquid will irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce drowsiness and a headache.

Potential Health Effects:

Eyes: Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

Skin: Contact causes skin irritation.

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach. May cause vomiting.

Inhalation: Harmful if inhaled. High concentrations of vapors 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.

Pre-Existing Medical Conditions Aggravated by Exposure: Heart, lung, skin, eye.

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Skin: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Ingestion: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get immediate medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 53°F (12C) (TCC)

LEL/UEL: Not established (% by volume in air)

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Large Spills: Shut off leak if possible and safe to do so. Wear self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

Small Spills: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks and flame. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS/PERSONNEL PROTECTION

Exposure Guidelines:

CHEMICAL NAME	ACGIH TLV	OSHA PEL	ACGIH STEL
Isopropanol	200ppm	400ppm	400ppm
n-Propyl Acetate	200ppm	200ppm	250ppm
Hexamethyldisiloxane	NA	NA	NA

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If vapor concentration exceeds TLV, use NIOSH approved organic vapor cartridge respirator. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves when handling this material.

NFPA and HMIS Codes:	NFPA	HMIS
Health	1	1
Flammability	3	3
Reactivity	1	1
Personal Protection	- B	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear, colorless liquid
Odor: Sweet solvent
pH: NA
Vapor Pressure: 33 mm Hg @ 68°F
Vapor Density: >1 @ 100°F (Air=1)
Percent Volatile: 100%
Boiling Point: 180 F (82C)

Solubility in Water: Negligible
Specific Gravity: (Water =1) 0.79
Evaporation Rate: <1 (Butyl acetate=1)
Viscosity: 1 (Approx.) (Water = 1)
Melting Point: NA

SECTION 10: STABILITY AND REACTIVITY

Stability - This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.
Incompatibility: Do not mix with powdered alkali and alkaline earth metals or strong oxidizing agents.
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons, as well as oxides of silicone.
Hazardous Polymerization: Will not occur Conditions to Avoid: NA

SECTION 11: TOXICOLOGICAL INFORMATION

<u>Inhalation:</u>			<u>Ingestion:</u>		
Isopropanol	LC50/rats	12,000ppm/8 hrs	Isopropanol	LD50/rats	5,800 mg/kg
n-Propyl Acetate	TCLo/human	1,000 mg/m3	n-Propyl Acetate	LD50/rats	9,370 mg/kg
<u>Skin:</u>			Hexamethylidisiloxane	LDLo rat	8 mL/kg
Isopropanol	Rabbits	MLD	<u>Eye:</u>		
n-Propyl Acetate	Rabbits	500 mg open MLD	n-Propyl Acetate	rabbit 500 mg/24H	MLD
Hexamethylidisiloxane	Rabbits LD50	16 mL/kg	Isopropanol	rabbit 100 mg	MLD-MOD

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC
 Reproductive effects: none Teratogenic effects: none Mutagenic effects: none

SECTION 12: ECOLOGICAL INFORMATION

Environmental Impact Information

Avoid runoff into storm sewers and ditches, which lead to waterways. Water runoff can cause environmental damage.

REPORTING

US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is: **1-800-424-8802**

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

Proper Shipping Name	UN Number	Hazard Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr.	Max. Quantity
<u>Air:</u> Flammable liquids, n.o.s. (Isopropanol)	UN 1993	3	NA	II	Flammable Liquid	305 307	5L 60L
<u>Ground:</u> Consumer Commodity ORM-D	NA	ORM-D	NA	NA	ORM-D	Pkg. Auth.	173.202 173.150

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION This product contains no toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class B2; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION

Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.