


**MATERIAL SAFETY DATA SHEET**  
**Solid Gel EKG Snap Electrodes**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** Solid Gel EKG Snap Electrodes  
**Use/Size** Electrode Article used in Medical Application  
**Product Numbers** 22450, 22453, 22455, 22850, 22853, 22855, 31013926, 31050522, 31078135, 31112496, 31115788, 31115796, 31118733, 31181129, 31194621U, 31371308, 31439725, 31439766, 31452389, 31452405, 31478368, 31478376, 31479457, 31488177, 31499224, 31530846, 40000003, 40000004, 40000005, 40000013, 40000020, 50000037, ES20250, ES20329, ES40025, ES40250, ES40325, ES60250, ES60300, ES60301  
**Manufacturer/Supplier** Tyco Healthcare/Kendall  
**Address** 15 Hampshire Street  
Mansfield, MA 02048  
**Phone Number** (508) 261-8000 (Monday – Friday 8:00 am to 5:00 pm)  
**Chemtrec Number** (800) 424-9300   
**Revision Date:** February 1, 2005  
**MSDS Date:** February 1, 2005

*This MSDS has been compiled in accordance with - EC Directive 91/155/EC - OSHA's Hazcom Standard (29 CFR 1910.1200)*

**2. COMPOSITION/INFORMATION ON THE COMPONENTS**

Component Name	CAS#/Codes	Concentration	R Phrases	Classification
Electrode	Proprietary	100.0%	R-None	None

**3. HAZARD IDENTIFICATION**

**EU Main Hazards**  
Not classified as hazardous.

**Routes of Entry**

- Eye contact - Skin contact

**Carcinogenic Status**

Not considered carcinogenic by NTP, IARC, and OSHA.

**Target Organs**

- Eye - Skin

**Health Effects - Eyes**

Contact with electrode may cause slight transient irritation.

**Health Effects - Skin**

Electrode is non-irritating to skin.

**Health Effects - Ingestion**

No adverse effects are expected during normal conditions of use.

**Health Effects - Inhalation**

No adverse effects are expected during normal conditions of use.

## MATERIAL SAFETY DATA SHEET

### Solid Gel EKG Snap Electrodes

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#### 4. FIRST AID MEASURES

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**Eyes**

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Skin**

Wash skin thoroughly with soap and water. Continue washing for at least 15 minutes. Remove contaminated clothing as washing proceeds. Obtain medical attention if blistering occurs or redness persists.

**Ingestion**

If article is accidentally swallowed, seek medical attention immediately.

**Inhalation**

Inhalation hazard is not possible with this article.

**Advice to Physicians**

Treat symptomatically.

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#### 5. FIRE FIGHTING MEASURES

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**Extinguishing Media**

Not Flammable. Select extinguishing agent appropriate to other materials involved.

**Unusual Fire and Explosion Hazards**

This product may give rise to hazardous fumes in a fire.

**Protective Equipment for Fire-Fighting**

Wear full protective clothing and self-contained breathing apparatus.

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#### 6. ACCIDENTAL RELEASE MEASURES

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This article should be picked up or sweep up and disposed of as solid waste.

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#### 7. HANDLING AND STORAGE

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Wear appropriate personal protective equipment when handling. Storage area should be: - cool - dry

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Occupational Exposure Standards**

Exposure limits are listed below, if they exist.

**Electrode**

None assigned.

**Engineering Control Measures**

No specific controls are necessary.

**Respiratory Protection**

Respiratory protection is not required.

**Hand Protection**

Protective gloves.

**Eye Protection**

Chemical goggles or safety glasses with side shields may be worn.

**MATERIAL SAFETY DATA SHEET**  
**Solid Gel EKG Snap Electrodes****Body Protection**

Normal work wear.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>Physical State</b>	Solid article
<b>Color</b>	Multi-colored
<b>Odor</b>	Odorless
<b>pH</b>	Approximately 3 - 5 (based on conductive salt contained within)
<b>Specific Gravity</b>	Not applicable
<b>Boiling Range/Point (°C/F)</b>	Not applicable
<b>Melting Point (°C/F)</b>	Not applicable
<b>Flash Point (PMCC) (°C)</b>	Not applicable
<b>Vapor Pressure</b>	Negligible
<b>Solubility in Water</b>	Completely insoluble
<b>Vapor Density (Air = 1)</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>VOC (g/l)</b>	0.0

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**10. STABILITY AND REACTIVITY**

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**Stability**

Stable under normal conditions.

**Conditions to Avoid**

- Contact with incompatible materials

**Materials to Avoid**

- Strong oxidizing agents - Strong Bases

**Hazardous Polymerization**

Will not occur.

**Hazardous Decomposition Products**

- oxides of carbon – oxides of iron – oxides of nickel – oxides of tin – hydrogen chloride

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**11. TOXICOLOGICAL INFORMATION**

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**Acute Toxicity**

(Electrode) Primary skin irritation (modified Draize testing) was non-irritating.

(Electrode) This article has tested negative for skin sensitization by Buehler Patch testing.

(Electrode) USP Agar Diffusion testing has shown this article to be non-cytotoxic.

**Chronic Toxicity/Carcinogenicity**

This product is not expected to cause long term adverse health effects.

**Genotoxicity**

This product is not expected to cause any mutagenic effects.

**Reproductive/Developmental Toxicity**

This product is not expected to cause reproductive or developmental health effects.

**MATERIAL SAFETY DATA SHEET**  
**Solid Gel EKG Snap Electrodes**

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**12. ECOLOGICAL INFORMATION**

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**Mobility**

No relevant studies identified.

**Persistence/Degradability**

No relevant studies identified.

**Bio-accumulation**

No relevant studies identified.

**Ecotoxicity**

No relevant studies identified

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**13. DISPOSAL**

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Dispose of in accordance with all applicable local and national regulations.

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**14. TRANSPORT INFORMATION**

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<b>DOT CFR 172.101 Data</b>	Not Regulated
<b>UN Proper Shipping Name</b>	Not Regulated
<b>UN Class</b>	None.
<b>UN Number</b>	None.
<b>UN Packaging Group</b>	None.
<b>Classification for AIR Transportation (IATA)</b>	Consult current IATA Regulations prior to shipping by air.

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**15. REGULATORY INFORMATION**

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**EU Label Information**

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

**EU Hazard Symbol and Indication of Danger**

According to EC Commission Directive 67/548/EEC this product is not classified.

**R phrases**

None.

**S phrases**

None.

**US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS****TSCA Listing**

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Inventory.

**EINECS Listing**

All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

**DSL (Canadian) Listing**

All ingredients in this product are listed on or exempted from listing on the Domestic Substance List (DSL).

**WHMIS Classification**

This article is exempt under WHMIS.

**MATERIAL SAFETY DATA SHEET**  
**Solid Gel EKG Snap Electrodes**

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

**MA Right To Know Law**

This product and its components are exempt from the requirements of the Massachusetts Right To Know Substance List.

**PA Right To Know Law**

This product and its components are exempt from the requirements of the Pennsylvania Hazardous Substance List.

**NJ Right To Know Law**

This product and its components are exempt from the requirements of the New Jersey Workplace Hazardous Substance List.

**California Proposition 65**

This product contains no chemicals that have been found by the State of California to cause cancer, birth defects or other reproductive harm.

**SARA Title III Sect. 302 (EHS)**

This product does not contain any chemicals subject to SARA Title III Section 302.

**SARA Title III Sect. 304**

This product does not contain any chemicals subject to SARA Title III Section 304.

**SARA Title III Sect. 311/312 Categorization**

Immediate (Acute) Health Hazard

**SARA Title III Sect. 313**

This product and its components are exempt from the requirements of Section 313.

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**16. OTHER INFORMATION**

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**NFPA Ratings**

NFPA Code for Flammability - 0

NFPA Code for Health - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - 0

**HMIS Ratings**

HMIS Code for Flammability - 0

HMIS Code for Health - 0

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

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**16. OTHER INFORMATION**

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**Abbreviations**

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

**MATERIAL SAFETY DATA SHEET**  
**Solid Gel EKG Snap Electrodes**

R: Risk  
S: Safety  
LC50: Lethal Concentration 50%  
LD50: Lethal Dose 50%  
BOD: Biological Oxygen Demand  
KoC: Soil Organic Carbon Partition Coefficient

**Prepared By:** EnviroNet LLC.

The information and recommendations presented in this MSDS are based on sources believed to be accurate; therefore, Tyco Healthcare/Kendall Company assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the information for their particular purposes.

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# Material Safety Data Sheet

## PRODUCT CODE NUMBERS:

NPKS84925, MDS090735, MDS090730DS, MDS090730BR, MDS090730, MDS090675DS, MDS090675,  
MDSE090740, HPIV104300, HPI1030011

## SECTION 1

ISSUE DATE: December 12, 2006

IDENTITY: **ALCOHOL PREP PAD**

### MARKETED OR DISTRIBUTED BY:

Medline Industries, Inc. *Emergency Telephone Information:*  
One Medline Place **Contact Your Regional Poison Control Center**  
Mundelein, IL 60060  
**1.800.MEDLINE**

## SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific chemical identity, common name(s))	CAS #	OSHA PEL	ACGIH TLV	Other limits Recommended	% (Optional)
Isopropanol		400ppm	400ppm	TWA (980mg/m3)	70%

## SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling point: >180F	SP Gravity (water=1): 0.878
Vapor pressure (mm Hg): 733	Melting Point: NA
Vapor density (air=1): >2.0	Evaporation Rate (butyl acetate=1): > 7.0
Solubility in water: Azeotrope	
Appearance and odor: Clear, colorless with characteristic of IPA	

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash point (method used): 70 F		
Explosive limits:	LEL: 2	UEL: 12.0
Extinguishing media: CO2, dry chemical, water spray, water fog, alcohol type foam.		
Special Fire Fighting Procedures: Wear proper protection, fight fire from safe distance.		
Unusual Fire and Explosive Hazards: Releases vapor below ambient temperatures. Vapors may travel long distances before igniting and flashing to vapor source.		

## SECTION 5 - REACTIVITY DATA

Stability: Stable  
Conditions to avoid: NA  
Incompatibility (materials to avoid): Anhydride, isocyanate and organometallic contamination  
Hazardous decomposition or byproducts. Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.  
Hazardous polymerization: Will not occur.

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## SECTION 6 - HEALTH HAZARD DATA

Signs and symptoms of exposure: Coughing, dizziness and watery eyes.
<b>Health Hazards:</b> Prolonged breathing of vapors may cause coughing, shortness of breath, intoxication. Eye contact may cause moderate irritation. Material can affect mucous tissue and/or aggravate mucous membrane dysfunction. Ingestion may cause gastric distress. Excessive ingestion may lead to coma or death.
Medical conditions generally aggravated by exposure: Sensitive or inflamed skin may become irritated.
<b>Emergency and First Aid procedures:</b> <b>Skin contact:</b> NA <b>Eye contact:</b> Flush with water. If irritation persists, contact physician. <b>Inhalation:</b> <b>Ingestion:</b> If large quantities are ingested, administer warm water and contact physician.

## SECTION 7 - SPILL, LEAK, AND WASTE DISPOSAL PROCEDURES

Steps to be taken in case material is released or spilled. Eliminate all sources of ignition and flush with large quantities of water spray.
Waste Disposal Method: Follow all local, state and federal regulations. Atomize into an incinerator where appropriate federal, state and local regulations allow.
Precautions to be taken in handling and storing. Flammable. Keep away from sparks, flames, or high temperatures.
Other precautions: Keep out of reach of children.

## SECTION 8 - CONTROL MEASURES

Respiratory Protection (specify type) NA
Ventilation: Local exhaust Protective gloves: NA Eye Protection: Goggles: Use eye bath if eye contact occurs.
Other protective clothing or equipment: NA
Work/hygienic practices: Good hygienic practice.

## SECTION 9 -- ADDITIONAL INFORMATION

Safety and Hazard Ratings: (Minimal = 0; Slight = 1; Moderate = 2; Severe = 3; Extreme = 4)

Health (Acute-Chronic): 0 Flammability: 3 Reactivity: 0 Environment (Air-Water-Soil):

## SECTION: 10 REGULATORY INFORMATION

**USA State Regulations: product class 4.1 with exemption A-46**

## SECTION 11 - ADDITIONAL INFORMATION

*The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. Medline Industries, Inc. provides no warranties, either expressed or implied and assumes no responsibility for the*

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MDSE090740, HPIV104300, HPI1030011**

*accuracy or completeness of the data contained herein.*

### **Document Revision History:**

Issued: April 17, 2007 New document

Revised: December 19, 2007 Added product number MDSE090740