

MICRO SWITCH, A DIVISION OF HO -- IL50-001, GLASS ENCLOSED MERCURY SWITCH

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MSDS Safety Information  
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FSC: 5930  
NIIN: 00-636-3917  
MSDS Date: 06/04/1995  
MSDS Num: CKQHF  
Product ID: IL50-001, GLASS ENCLOSED MERCURY SWITCH  
MFN: 03  
Responsible Party  
Cage: K0531  
Name: MICRO SWITCH, A DIVISION OF HONEYWELL  
Address: 11 W. SPRING STREET  
City: FREEPORT IL 61032  
Info Phone Number: 815-235-5500  
Emergency Phone Number: 815-235-5432  
Resp. Party Other MSDS No.: HONEYWELL ID #: IL-50-001  
Review Ind: Y  
Published: Y

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Contractor Summary  
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Cage: 91929  
Name: HONEYWELL INC. MICRO SWITCH DIVISION  
Address: 11 W SPRING ST  
City: FREEPORT IL 61032  
Phone: 815-235-6592  
Cage: K0531  
Name: MICRO SWITCH, A DIVISION OF HONEYWELL  
Address: 11 W. SPRING STREET  
City: FREEPORT IL 61032  
Phone: 815-235-5500

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Item Description Information  
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Item Manager: S9E  
Item Name: SWITCH, MERCURY  
Specification Number: NONE  
Type/Grade/Class: NONE  
Unit of Issue: EA

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Ingredients  
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Cas: 7439-97-6  
RTECS #: OV4550000  
Name: MERCURY  
Percent by Wt: 100.  
OSHA PEL: SEE TABLE Z-2  
ACGIH TLV: 0.025 MG/M3  
ACGIH STEL: NOT ESTABLISHED  
EPA Rpt Qty: 1 LB  
DOT Rpt Qty: 1 LB

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Health Hazards Data  
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LD50 LC50 Mixture: NO INFORMATION AVAILABLE

Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: AS SUPPLIED, THIS PRODUCT IS NOT HAZARDOUS. ANY DAMAGE TO THE GLASS ENCLOSURE MAY RELEASE MERCURY LIQUID &/OR VAPORS WHICH CAN BE EXTREMELY HAZARDOUS. EYE: MERCURY IS SLIGHTLY IRRITATING. SKIN: MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. PROLONGED/REPEATED EXPOSURE MAY CAUSE IRRITATION, SKIN SENSITIZATION. BROKEN OR DAMAGED GLASS ENCLOSURE MAY RESULT IN CUTS OR ABRASIONS. INGESTION: LIQUID MERCURY IS POORLY ABSORBED THROUGH FROM THE GI TRACT, & ACUTE INGESTION HAS BEEN ASSOCIATED WITH POISONING ONLY IN THE PRESENCE OF DECREASED GUT MOTILITY. INHALATION: MERCURY VAPOR IS POISONOUS, IRRITATING TO THE RESPIRATORY SYSTEM. (SUPPL)

Explanation Of Carcinogenicity: NO INFORMATION AVAILABLE. NOT LISTED ON NTP, OSHA, OR IARC LISTS OF CARCINOGENS.

Signs And Symptoms Of Overexposure: INHALATION: MAY CAUSE INFLAMMATION OF THE RESPIRATORY TRACT, LUNG LESIONS, ACUTE KIDNEY DAMAGE & METAL FUME FEVER WHICH IS A TRANSIENT FLU-LIKE CONDITION INCLUDING FEVER, SWEATING, ACHES & PAINS & DIFFICULTY IN BREATHING. INHALATION MAY BE FATAL AS A RESULT OF SEVERE PULMONARY IRRITATION. ACUTE MERCURY POISONING CAN INVOLVE SWEATING, IRRITABILITY, INSOMNIA, LETHARGY, TACHYCARDIA, HYPERTENSION, & SKIN RASH.

Medical Cond Aggravated By Exposure: NONE PROVIDED BY MFR.

First Aid: EYE: FLUSH WITH WATER FOR 15 MINS. SEEK IMMEDIATE MEDICAL ATTENTION. SKIN: FLUSH IMMEDIATELY WITH WATER FOR 15 MINS, & THEN WASH SKIN THOROUGHLY WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING & SHOES. SEEK MEDICAL ATTENTION IF SYMPTOMS DEVELOP OR PERSIST. DISPOSE OF CONTAMINATED CLOTHING. INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION. HAVE VICTIM RINSE MOUTH WITH WATER. DILUTE CONTENTS OF STOMACH BY ADMINISTERING 8 OZ OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. INHALATION: REMOVE TO FRESH AIR. GET MEDICAL HELP.

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Handling and Disposal  
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Spill Release Procedures: WEAR ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. AVOID INHALATION OF DUSTS. VENTILATE THE AREA. KEEP UNNECESSARY PERSONNEL AWAY. CLOSE OFF AREA. IF MERCURY IS RELEASED, STOP THE FLOW OF MATERIAL & COLLECT WITH SPILL KIT, ASPIRATION BOTTLE OR APPROVED MERCURY VACUUM, IF THIS IS WITHOUT RISK. DO NOT PERMIT CONTACT WITH SPILLED MATERIAL. PICK UP CONTAINED MATERIAL WITH SPILL KIT.

Neutralizing Agent: NONE PROVIDED BY MFR.

Waste Disposal Methods: ALL WASTES MUST BE HANDLED IN ACCORDANCE WITH LOCA, STATE & FEDERAL REGULATIONS. WASTES MAY REQUIRE AN EPA CODE FOR CORROSIVITY (D002). MERCURY SHOULD BE SALVAGED FOR REFINICATION. DO NOT DISCHARGE MERCURY DOWN THE DRAIN.

Handling And Storage Precautions: HANDLING: HANDLE THIS PRODUCT IN A MANNER TO PREVENT DAMAGE TO THE GLASS ENCLOSURE. DO NOT GET MERCURY OR BROKEN GLASS IN EYES, ON SKIN, OR ON CLOTHING. DO NOT BREATHE FUMES OR VAPORS FROM THIS MATERIAL IF GLASS ENCLOSURE IS DAMAGED OR BROKEN. USE THIS PRODUCT ONLY WITH ADEQUATE VENTILATION.

Other Precautions: KEEP AWAY FROM FOOD AND DRINKING WATER.

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Fire and Explosion Hazard Information  
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Flash Point Text: NONE  
Lower Limits: NOT AVAILABL  
Upper Limits: NOT AVAILABL  
Extinguishing Media: USE ANY MEDIA SUITABLE FOR THE SURROUNDING FIRES.  
NON-COMBUSTIBLE, SUBSTANCE ITSELF DOES NOT BURN. GLASS ENCLOSURE MAY BECOME  
DAMAGED FROM EXCESSIVE HEAT & RELEASE MERCURY.  
Fire Fighting Procedures: FIREFIGHTERS SHOULD WEAR PROTECTIVE CLOTHING  
INCLUDING SELF CONTAINED BREATHING APPARATUS. USE WATER SPRAY TO KEEP  
FIRE-EXPOSED CONTAINERS COOL. ISOLATE HAZARD AREA.  
Unusual Fire/Explosion Hazard: GLASS ENCLOSURE MAY BECOME DAMAGED FROM  
EXCESSIVE HEAT & RELEASE MERCURY. FUMES MAY BE TOXIC & IRRITATING  
& MAY INCLUDE MERCURY VAPORS.

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Control Measures  
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Respiratory Protection: IF VENTILATION IS NOT SUFFICIENT TO EFFECTIVELY  
REMOVE & PREVENT ACCUMULATION OF AIRBORNE VAPORS, MISTS OR FUMES CONTAINING  
MERCURY, APPROPRIATE NIOSH/MSHA RESPIRATORY PROTECTION MUST BE PROVIDED  
Ventilation: USE LOCAL EXHAUSE & PROCESS ENCLOSURE TO CONTROL AIRBORNE  
MISTS & VAPORS. USE OF A CORROSION-RESISTANT VENTILATION SYSTEM IS  
RECOMMENDED  
Protective Gloves: IMPERVIOUS GLOVES  
Eye Protection: SAFETY GLASSES WITH SIDE SHIELDS, CHEMICAL GOGGLES, &/OR FACE  
SHIELD  
Other Protective Equipment: NONE PROVIDED BY MFR.  
Work Hygienic Practices: DO NOT EAT, DRINK OR SMOKE IN WORK AREAS. FOLLOW  
GOOD HYGIENE & HOUSEKEEPING PRACTICES.  
Supplemental Safety and Health: HEALTH CONT: CHRONIC EXPOSURE CAN CAUSE  
NEUROBEHAVIORAL/PHYSHOLOGICAL CHANGES

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Physical/Chemical Properties  
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HCC: Z2  
Boiling Point: =356.7C, 674.1F  
B.P. Text: MERCURY  
Melt/Freeze Pt: =-38.7C, -37.5F  
M.P/F.P Text: MERCURY  
Decomp Text: NONE PROVIDED BY MFR.  
Vapor Pres: 0.0012 MMHG@20C (MERCURY)  
Vapor Density: 7.0(AIR=1)  
Spec Gravity: 13.4 (H2O=1) (MERCURY)  
PH: NONE PROVIDED  
Viscosity: NONE PROVIDED BY MFR.  
Evaporation Rate & Reference: 4 (BU ACETATE=1) (MERCURY)  
Solubility in Water: NONE PROVIDED BY MFR.  
Appearance and Odor: GLASS SWITCH WITH LIQUID MERCURY, NO ODOR  
Percent Volatiles by Volume: NONE PROVIDE  
Corrosion Rate: NONE PROVIDED BY MFR

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Reactivity Data  
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Stability Indicator: YES , POTASSIUM & SODIUM. MERCURY  
Stability Condition To Avoid: NORMALLY STABLE. AVOID HEAT & CONTACT WITH  
INCOMPATIBLE MATERIALS.  
Materials To Avoid: MERCURY & MERCURY VAPOR IS INCOMPATIBLE WITH ACETYLENE,  
ALUMINUM, AMINES, AZIDES, AMMONIA, BORON, DIIDOPHOSPHIDE, BROMINE,

3-BROMOPROPYNE, CALCIUM, CHLORINE, CHLORINE DIOXIDE, COPPER, ETHYLENE  
OXIDE, LITHIUM, ACIDS, OXIDANT  
Hazardous Decomposition Products: TOXIC MERCURY VAPORS  
Hazardous Polymerization Indicator: NO  
Conditions To Avoid Polymerization: WILL NOT OCCUR

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Toxicological Information  
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Toxicological Information: EXPOSURE TO MERCURY CAN CAUSE TOXICITY TO THE CNS,  
CHARACTERIZED BY TREMOR, ATAXIA AND LOSS OF COORDINATION, TO THE PERIPHERAL  
NERVOUS SYSTEM INCLUDING DECREASED STRENGTH AND ABNORMAL REFLEX RESPONSES.  
MERCURY CAN CAUSE MUTATION &/OR DNA DAMAGE IN BACTERIAL AND MAMMALIAN  
CELL CULTURES. OCCUPATIONAL HAS BEEN ASSOCIATED WITH SLIGHT INCREASE IN THE  
NUMBER OF OBSERVED CHROMOSOMAL ABERRATIONS. MERCURY HAS BEEN REPORTED TO  
CAUSE MALE AND FEMALE FERTILITY, AND BIRTH DEFECTS INCLUDING CLEFT PALATE  
AND SKELETAL DEFECTS IN HUMANS. HOWEVER, INFO IS INCOMPLETE.

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Ecological Information  
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Ecological: DUE TO THE NATURE OF MERCURY, IT IS EXPECTED TO BE HARMFUL TO  
AQUATIC LIFE IN LOW CONCENTRATIONS. FISH: LC50 (96 HR) CAT FISH= 0.35 MG/L;  
LC50 (96 HR) BLUEGILL SUNFISH, RAINBOW TROUT, SNAKEHEAD FISH= 0.16-0.9  
MG/L. AMPHIBIAN: LC50 (96 HR) RANA HEXADACTYLA (TADPOLE) = 0.051 PPM.  
INVERTEBRATE: LC50 (48 HR) MODIOLUS CARVALHOI (MOLLUSK) = 0.5 PPM; LC50 (96  
HR) LYMNAEA ACUMINATA, MAIS COMMUNIS, HYDROLILUS FRANTZI, APLEXA HYPNORUM =  
0.02 - 0.36 MG/L.

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MSDS Transport Information  
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Regulatory Information  
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Sara Title III Information: SARA 313: FORM R REPORTING REQUIRED FOR 1% DE  
MINIMUM CONCENTRATION.  
CERCLA: FINAL RQ= 1 LB (0.454 KG).  
State Regulatory Information: "WARNING" THIS PRODUCT CONTAIN A CHEMICAL KNOWN  
TO THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE/DEVELOPMENTAL EFFECTS:  
MERCURY (CAS # 7439-97-6)

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Other Information  
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Other Information: NONE  
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Transportation Information  
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Responsible Party Code: K0531  
Trans ID NO: 153971  
Product ID: IL50-001, GLASS ENCLOSED MERCURY SWITCH  
MSDS Prepared Date: 06/04/1995  
Review Date: 07/11/2000  
MFN: 3  
Multiple KIT Number: 0  
Unit Of Issue: EA

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Detail DOT Information  
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DOT PSN Code: IZP

Symbols: A  
DOT Proper Shipping Name: MERCURY  
DOT PSN Modifier: CONTAINED IN MANUFACTURED ARTICLES  
Hazard Class: 8  
UN ID Num: UN2809  
DOT Packaging Group: I  
Label: CORROSIVE  
Non Bulk Pack: 164  
Bulk Pack: NONE  
Max Qty Pass: NO LIMIT  
Max Qty Cargo: NO LIMIT  
Vessel Stow Req: B  
Water/Ship/Other Req: 40,97

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Detail IMO Information  
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IMO PSN Code: ZZZ  
IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION  
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Detail IATA Information  
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IATA PSN Code: QBQ  
IATA UN ID Num: 2809  
IATA Proper Shipping Name: MERCURY CONTAINED IN MANUFACTURED ARTICLES  
IATA UN Class: 8  
IATA Label: CORROSIVE  
UN Packing Group: III  
Packing Note Passenger: SEE 805  
Max Quant Pass: SEE 805  
Max Quant Cargo: SEE 805  
Packaging Note Cargo: SEE 805  
Exceptions: A48, A69  
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Detail AFI Information  
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AFI PSN Code: PYK  
AFI Proper Shipping Name: MERCURY CONTAINED IN MANUFACTURED ARTICLES  
AFI Hazard Class: 8  
AFI UN ID NUM: UN2809  
AFI Packing Group: I  
Special Provisions: P5  
Back Pack Reference: A12.10  
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HAZCOM Label  
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Product ID: IL50-001, GLASS ENCLOSED MERCURY SWITCH  
Cage: K0531  
Assigned IND: Y  
Company Name: MICRO SWITCH, A DIVISION OF HONEYWELL  
Street: 11 W. SPRING STREET  
City: FREEPORT IL  
Zipcode: 61032  
Health Emergency Phone: 815-235-5432  
Label Required IND: Y  
Date Of Label Review: 07/11/2000  
Status Code: A  
Origination Code: F

Chronic Hazard IND: Y  
Skin Protection IND: YES  
Signal Word: WARNING  
Respiratory Protection IND: YES  
Health Hazard: Moderate  
Contact Hazard: Moderate  
Fire Hazard: None  
Reactivity Hazard: None  
Hazard And Precautions: AS SUPPLIED, THIS PRODUCT IS NOT HAZARDOUS. ANY  
DAMAGE

TO THE GLASS ENCLOSURE MAY RELAEASE MERCURY LIQUID &/OR VAPORS WHICH CAN  
BE EXTREMELY HAZARDOUS. MERCURY IS SLIGHTLY IRRITATING TO EYES AND SKIN.  
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. INHALATION OF VAPOR IS  
POISONOUS.FIRST AID:EYE: FLUSH WITH WATER FOR 15 MINS. SEEK MEDICAL HELP.  
SKIN: FLUSH WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING & SHOES. SEEK  
MEDICAL HELP. INGESTION: DO NOT INDUCE VOMITING. SEEK IMMED IATE MEDICAL  
HELP. HAVE VICTIM RINSE MOUTH WITH WATER AND DRINK 8 OZ OF WATER.  
INHALATION: REMOVE TO FRESH AIR. GET MEDICAL HELP.

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