

MICRO SWITCH, A DIVISION OF HONEYWELL -- IL50-001, GLASS ENCLOSED MERCURY SWITCH --  
5930-00-636-3917

===== Product Identification =====

Product ID:IL50-001, GLASS ENCLOSED MERCURY SWITCH  
MSDS Date:06/04/1995  
FSC:5930  
NIIN:00-636-3917  
Status Code:A  
MSDS Number: CKQHF  
=== Responsible Party ===  
Company Name:MICRO SWITCH, A DIVISION OF HONEYWELL  
Address:11 W. SPRING STREET  
City:FREEPORT  
State:IL  
ZIP:  
61032  
Country:US  
Info Phone Num:815-235-5500  
Emergency Phone Num:815-235-5432  
Resp. Party Other MSDS Num.:HONEYWELL ID #: IL-50-001  
CAGE:KO531

=== Contractor Identification ===  
Company Name:HONEYWELL INC. MICRO SWITCH DIVISION  
Address:11 W SPRING ST  
Box:City:FREEPORT  
State:IL  
ZIP:61032  
Country:US  
Phone:815-235-6592  
CAGE:91929  
Company Name:MICRO SWITCH, A DIVISION OF HONEYWELL  
Address:11 W. SPRING STREET  
Box:City:FREEPORT  
State:IL  
ZIP:61032  
Country:US  
Phone:815-235-5500  
CAGE:KO531

=====

Composition/Information on Ingredients =====

Ingred Name:MERCURY  
CAS:7439-97-6  
RTECS #:OV4550000  
= Wt:100.  
OSHA PEL:SEE TABLE Z-2  
ACGIH TLV:0.025 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

===== Hazards Identification =====

LD50 LC50 Mixture:NO INFORMATION AVAILABLE  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:AS SUPPLIED, THIS PRODUCT IS NOT  
HAZARDOUS  
. ANY DAMAGE TO THE GLASS ENCLOSURE MAY RELAEASE 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 MERC URY IS POORLY ABSORBED THROUGH  
FROM THE GI TRACT, & ACUTE INGESTION HAS BEEN ASSOCIATED WITH  
POISONING ONLY IN T  
HE PRESENCE OF DECREASED GUT MOTILITY.  
INHALATION: MERCURY VAPOR IS POISONOUS, IRRITATIN G TO THE  
RESPIRATORY SYSTEM. (SUPPL)  
Explanation of Carcinogenicity:NO INFORMATION AVAILABLE. NOT LISTED ON  
NTP, OSHA, OR IARC LISTS OF CARCINOGENS.  
Effects 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 & DIF FICULTY IN BR  
EATHING. INHALATION MAY  
BE FATAL AS A RESULT OF SEVERE PULMONARY IRRITATION. ACUTE MERCURY  
POISONING CAN INVOLVE SWEATING, IRRITABILITY, INSOMNIA, LETHARGY,  
TACHYCARDIA, HYPERTENSION, & S KIN RASH.  
Medical Cond Aggravated by Exposure:NONE PROVIDED BY MFR.

===== First Aid Measures =====

First Aid:EYE: FLUSH WITH WATER FOR 15 MINS. SEEK IMMEDIATE MEDICAL  
ATTENTION. SKIN: FLUSH IMMEDIATELY WITH WATER FOR 15 MINS, & THEN  
WASH SKIN THOROUGHL

WASH 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.

===== Fire Fighting Measures =====

Flash Point: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.

===== Accidental Release Measures =====

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.

===== Handling and Storage =====

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.

===== Exposure Controls/Personal Protection =====

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

EXHAUST & 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/PHYSIOLOGICAL CHANGES

===== Physical/Chemical Properties =====

HCC:Z2

Boiling Pt:=356.7C, 674.1F

B.P. Text:MERCURY

Melt/Freeze Pt:=-38.7C, -37.5F

M.P/F.P Text:MERCURY

Decomp Temp: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

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

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

Sta

bility Condition to Avoid:NORMALLY STABLE. AVOID HEAT & CONTACT WITH INCOMPATIBLE MATERIALS.

Hazardous Decomposition Products:TOXIC MERCURY VAPORS

Conditions to Avoid Polymerization:WILL NOT OCCUR

===== Toxicological Information =====

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 R

ESPONSES . MERCURY CAN CAUSE MUTATION &/OR DNA DAMAGE IN BACTERIAL AND MAMMALIAN CELL CUTURES. 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.

===== Ecological Information =====

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, HYDLRIL US FRANTZI, APLEXA HYPNORUM = 0.02 - 0.36 MG/L.

===== Disposal Considerations =====

=====

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 PRUFICATION. DO NOT DISCHARGE MER CURY DOWN THE DRAIN.

===== Regulatory Information =====

SARA Title III Information:SARA 313: FORM R REPORTING REQUIRED FOR 1% DE MINIMUS CONCENTRATION. CERCLA: FINAL RQ= 1 LB (0.454 KG).

State Regulatory Informat

ion:"WARNING" THIS PRODUCT CONTAIN A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE/DEVELOPMENTAL EFFECTS: MERCURY (CAS # 7439-97-6)

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.