

## MATERIAL SAFETY DATA SHEET OHS 14020

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SUBSTANCE IDENTIFICATION

CAS-NUMBER 7439-97-6  
RTEC-NUMBER OV4550000

SUBSTANCE: MERCURY

## TRADE NAMES/SYNONYMS:

COLLOIDAL MERCURY: METALLIC MERCURY: NCI-C60399: QUICKSILVER:  
INORGANIC MERCURY: RCRA U151: NA 2809: HYDRAGYRUM: ELEMENTAL  
MERCURY: M-141: M-139: M-140: UN2809: HG: OHS14020

## CHEMICAL FAMILY:

METAL

MOLECULAR FORMULA: HG

MOLECULAR WEIGHT: 200.59

CERCLA RATINGS (SCALE 0-3): HEALTH=3 FIRE=0 REACTIVITY=0 PERSISTENCE=3

NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=0 REACTIVITY=0

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COMPONENTS AND CONTAMINANTS

COMPONENT: MERCURY

PERCENT: 100

OTHER CONTAMINANTS: NONE

## EXPOSURE LIMIT:

MERCURY, ALL FORMS EXCEPT ALKYL (AS HG):

0.05 MG/M3 OSHA TWA (VAPOR); 0.1 MG/M3 OSHA CEILING (SKIN)

0.05 MG/M3 ACGIH TWA (VAPOR); 0.10 MG/M3 ACGIH TWA (ARYL &amp; INORGANIC) - (SKIN)

0.05 MG/M3 NIOSH RECOMMENDED 20 HOUR TWA

SUBJECT TO SARA SECTION 313 ANNUAL TOXIC CHEMICAL RELEASE REPORTING

MERCURY:

1 POUND CERCLA SECTION 103 REPORTABLE QUANTITY

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PHYSICAL DATA

DESCRIPTION: ODORLESS, SILVERY LIQUID WITH A METALLIC LUSTER.

BOILING POINT: 674 F (357 C)

MELTING POINT: -38 F (-39 C)

SPECIFIC GRAVITY: 13.5939

SOLUBILITY IN WATER: INSOLUBLE

VAPOR DENSITY: 7.0

VAPOR PRESSURE: 0.002 MMHG @ 25 C

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## OTHER SOLVENTS (SOLVENT-SOLUBILITY):

SOLUBLE IN BOILING SULFURIC ACID, NITRIC ACID, LIPIDS;

INSOLUBLE IN ALCOHOL, ETHER, HYDROCHLORIC ACID, HYDROGEN BROMIDE,  
HYDROGEN IODIDE.

## OTHER PHYSICAL DATA

VISCOSITY: 1.55 CPS @ 20 C

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FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD  
NEGLIGIBLE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

FIREFIGHTING MEDIA:  
DRY CHEMICAL, CARBON DIOXIDE, HALON, WATER SPRAY OR STANDARD FOAM  
(1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4)

FOR LARGER FIRES, USE WATER SPRAY FOG OR STANDARD FOAM  
(1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4)

FIREFIGHTING:  
MOVE CONTAINERS FROM FIRE AREA IF POSSIBLE. COOL CONTAINERS EXPOSED TO FLAMES  
WITH WATER FROM SIDE UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM STORAGE TANK  
ENDS (1987 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.4, GUIDE PAGE 60).

USE AGENTS SUITABLE FOR TYPE OF FIRE; USE WATER IN FLOODING AMOUNTS AS A FOG.  
AVOID BREATHING CORROSIVE AND POISONOUS VAPORS, KEEP UPWIND.

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TRANSPORTATION

DEPARTMENT OF TRANSPORTATION HAZARD CLASSIFICATION 49CFR 172.101: ORM-B

DEPARTMENT OF TRANSPORTATION LABELING REQUIREMENTS 49CFR 172.101 AND SUBPART E:  
NONE

DEPARTMENT OF TRANSPORTATION PACKAGING REQUIREMENTS: 49CFR173.860  
EXCEPTIONS: NONE

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TOXICITY

MERCURY:  
TOXICITY DATA: 150 UG/M3/46 DAYS INHALATION-WOMAN TCLO; 44,300 UG/M3/8 HOURS  
INHALATION-MAN TCLO; 29 MG/M3/30 HOURS INHALATION-RABBIT LCLO; 129 MG/KG/5  
HOURS CONTINUOUSLY SKIN-MAN TDLO; MUTAGENIC DATA (RTECS);  
REPRODUCTIVE EFFECTS DATA (RTECS); TUMORIGENIC DATA (RTECS).  
CARCINOGEN STATUS: NONE  
LOCAL EFFECTS: IRRITANT- MUCUOUS MEMBRANES.  
ACUTE TOXICITY LEVEL: INSUFFICIENT DATA.  
TARGET EFFECTS: SENSITIZER- PULMONARY, DERMAL; NEUROTOXIN; NEPHROTOXIN;  
POISONING MAY ALSO AFFECT THE RESPIRATORY AND GASTROINTESTINAL SYSTEMS.

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AT INCREASED RISK FROM EXPOSURE: PERSONS WITH CHRONIC REAPIRATORY DISEASE,  
NERVOUS SYSTEM DISORDERS AND KIDNEY DISEASE.

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HEALTH EFFECTS AND FIRST AID

INHALATION:  
MERCURY:  
IRRITANT/SENSITIZER/NEUROTOXIN/NEPHROTOXIN.  
28 MG/M3 IMMEDIATELY DANGEROUS TO LIFE OR HEALTH.  
ACUTE EXPOSURE- INHALATION OF HIGH LEVELS OF MERCURY VAPOR MAY CAUSE ALMOST  
IMMEDIATE DYSPNEA, COUGH, FEVER, NAUSEA, VOMITING, DIARRHEA, HEADACHE,  
STOMATITIS, SALIVATION, GINGIVITIS, A METALLIC TASTE, AND CARDIAC  
ABNORMATLITIES. RESPIRATORY IRRITATION MAY OCCUR WITH CHEST PAIN AND  
TIGHTNESS. SYMPTOMS MAY RESOLVE OR MAY PROGRESS TO NECROTIZING  
BRONCHIOLITIS, PNEUMONITIS, PULMONARY EDEMA, PNEUMOTHORAX, INTERSTITIAL  
FIBROSIS, AND DEATH. ACIDOSIS AND RENAL DAMAGE MAY ALSO OCCUR.  
ALLERGIC REACTIONS THAT MAY OCCUR IN PREVIOUSLY EXPOSED PERSONS INCLUDE  
DERMATITIS, ENCEPHALITIS, AND DEATH.  
MEATAL FUME FEVER, AN INFLUENZA-LIKE ILLNESS, MAY OCCUR DUE TO THE  
INHALATION OF FRESHLY FORMED METAL OXIDE PARTICLES SIZED BELOW 1.5 MICRONS  
AND USUALLY BETWEEN 0.02-0.05 MICRONS. SYMPTOMS MAY BE DELAYED 4-12 HOURS  
AND BEGIN WITH A SUDDEN ONSET OF THIRST, AND A SWEET, METALLIC OR FOUL  
TASTE IN THE MOUTH. OTHER SYMPTOMS MAY INCLUDE UPPER RESPIRATORY TRACT  
IRRITATION ACCOMPANIED BY COUGHING AND A DRYNESS OF THE MUCOUS MEMBRANES,  
LASSITUDE AND A GENERALIZED FEELING OF MALAISE. FEVER, CHILLS, MUSCULAR  
PAIN, MILD TO SEVERE HEADACHE, NAUSEA, OCCASIONAL VOMITING, EXAGGERATED

MENTAL ACTIVITY, PROFUSE SWEATING, EXCESSIVE URINATION, DIARRHEA, AND PROSTRATION MAY ALSO OCCUR. TOLERANCE TO FUMES DEVELOPS RAPIDLY, BUT IS QUICKLY LOST. ALL SYMPTOMS USUALLY SUBSIDE WITHIN 24-36 HOURS. CHRONIC EXPOSURE- INHALATION OF MERCURY VAPOR OVER A LONG PERIOD MAY CAUSE MERCURIALISM, WHICH IS CHARACTERIZED BY FINE TREMORS AND ERETHRISM. TREMORS MAY AFFECT THE HANDS FIRST, BUT MAY ALSO BECOME EVIDENT IN THE FACE, ARMS, AND LEGS. ERETHRISM MAY BE MANIFESTED BY ABNORMAL SHYNESS, BLUSHING, SELF-CONSCIOUSNESS, DEPRESSION OR DESPONDENCY, RESENTMENT OR CRITICISM, IRRITABILITY OR EXCITABILITY, HEADACHE, FATIGUE AND INSOMNIA. IN SEVERE CASES, HALLUCINATIONS, LOSS OF MEMORY, AND MENTAL DETERIORATION MAY OCCUR. CONCENTRATION AS LOW AS 0.03 MG/M3 HAVE INDUCED PSYCHIATRIC SYMPTOMS IN HUMANS. RENAL INVOLVEMENT MAY BE INDICATED BY PROTEINURIA, ALBUMINURIA, ENZYMURIA, AND ANURIA. OTHER EFFECTS MAY INCLUDE SALIVATION, GINGIVITIS, STOMATITIS, LOOSENING OF THE TEETH, BLUE LINES ON THE GUMS, DIARRHEA, WEIGHT LOSS, ANOREXIA, SPEECH AND SENSORY DISORDERS, UNSTEADY GAIT, CHRONIC PNEUMONITIS AND MILD ANEMIA. REPEATED EXPOSURE TO MERCURY AND ITS COMPOUNDS MAY RESULT IN SENSITIZATION. INTRAUTERINE EXPOSURE MAY RESULT IN TREMORS AND INVOLUNTARY MOVEMENTS IN THE INFANTS. MERCURY IS EXCRETED IN BREAST MILK. PATERNAL REPRODUCTIVE EFFECTS AND EFFECTS ON FERTILITY HAVE BEEN REPORTED IN MALE RATS FOLLOWING REPEATED INHALATION EXPOSURES.

FIRST AID- REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY AND BLOOD PRESSURE AND ADMINISTER OXYGEN IF AVAILABLE. KEEP AFFECTED PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. ADMINISTRATION OF OXYGEN SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:  
MERCURY:

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SENSITIZER/NEUROTOXIN/NEPHROTOXIN.  
ACUTE EXPOSURE- DIRECT CONTACT WITH LIQUID MAY CAUSE IRRITATION AND REDNESS. SMALL AMOUNTS OF MERCURY MAY BE ABSORBED THROUGH INTACT SKIN. ALLERGIC REACTIONS THAT MAY OCCUR IN PREVIOUSLY EXPOSED PERSONS INCLUDE DERMATITIS, ENCEPHALITIS, AND DEATH. SUBCUTANEOUS INTRODUCTION, FROM HANDLING BROKEN THERMOMETERS, MAY RESULT IN LOCAL INFLAMMATION, GRANULOMATOUS SKIN REACTIONS, AND SLIGHT SIGNS OF MERCURY POISONING INCLUDE DIGESTIVE DISORDERS, METALLIC TASTE IN THE MOUTH, AND NEUROPSYCHIC DISORDERS.

CHRONIC EXPOSURE- PROLONGED OR REPEATED EXPOSURE MAY RESULT IN DERMAL SENSITIZATION AND SYSTEMIC EFFECTS AS DETAILED IN CHRONIC INHALATION EXPOSURE.

FIRST AID- REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT:  
MERCURY:

ACUTE EXPOSURE- DIRECT CONTACT WITH LIQUID MAY CAUSE IRRITATION AND REDNESS. ANIMAL STUDIES INDICATE DIFFUSION AND ABSORPTION OF MERCURY INTO THE TISSUES OF THE EYE MAY OCCUR. NO CLINICAL SIGNS OF CONJUNCTIVITIS OR INFLAMMATION OCCURED.

CHRONIC EXPOSURE- MERCURY EXPOSURE FROM INHALATION, INGESTION, OR SKIN CONTACT MAY BE INDICATED BY MERCURIALENTIS, DISCOLORATION OF THE CRYSTALLINE LENS, ON SLIT LAMP EXAMINATION OF THE EYE.

FIRST AID- WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION  
MERCURY:

NEUROTOXIN/NEPHROTOXIN.

ACUTE EXPOSURE- MAY CAUSE BURNING OF THE MOUTH AND THROAT, THIRST, NAUSEA AND VOMITING. METALLIC MERCURY IS NOT USUALLY ABSORBED SUFFICIENTLY FROM THE GASTROINTESTINAL TRACT TO INDUCE AN ACUTE TOXIC RESPONSE. RARELY, A LARGE SINGLE DOSE MAY RESULT IN SIGNS AND SYMPTOMS OF CHRONIC INHALATION IF SUFFICIENT AMOUNTS OF MERCURY ARE RETAINED IN THE BODY.

CHRONIC EXPOSURE- REPEATED INGESTION OF SMALL AMOUNTS OF MERCURY MAY RESULT IN THE ABSORPTION OF SUFFICIENT AMOUNTS TO PRODUCE TOXIC EFFECTS AS DETAILED IN CHRONIC INHALATION EXPOSURE.

FIRST AID- REMOVE BY GASTRIC LAVAGE OR EMESIS. MAINTAIN BLOOD PRESSURE AND AIRWAY. GIVE OXYGEN IF RESPIRATION IS DEPRESSED. DO NOT PERFORM GASTRIC LAVAGE OR EMESIS IF VICTIM IS UNCONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY (DRIESBACH, HANDBOOK OF POISONING, 11TH ED.). ADMINISTRATION OF GASTRIC LAVAGE OR OXYGEN SHOULD BE PERFORMED BY QUALIFIED MEDICAL PERSONNEL.

ANTIDOTE:

THE FOLLOWING ANTIDOTE HAS BEEN RECOMMENDED. HOWEVER, THE DECISION AS TO WHETHER THE SEVERITY OF POISONING REQUIRES ADMINISTRATION OF ANY ANTIDOTE AND ACTUAL DOSE REQUIRES SHOULD BE MADE BY QUALIFIED MEDICAL PERSONNEL.

MERCURY POISONING:

GIVE DIMERCAPROL, 3 MG/KG (OR .3ML/10 KG) EVERY 4 HOURS FOR THE FIRST 2 DAYS AND THEN 2 MG/KG EVERY 12 HOURS FOR A TOTAL OF 10 DAYS IF NECESSARY. DIMERCAPROL IS AVAILABLE AS A 10% SOLUTION IN OIL FOR INTRAMUSCULAR

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ADMINISTRATION. HEMODIALYSIS WILL SPEED THE REMOVAL OF THE MERCURY-DIMERCAPROL COMPLEX. PENICILLAMINE IS ALSO EFFECTIVE. GIVE UP TO 100 MG/KG/DAY (MAXIMUM 1 GR/DAY) DIVIDED INTO 4 DOSES FOR NO LONGER THAN 1 WEEK. IF A LONGER ADMINISTRATION PERIOD IS WARRANTED, DOSAGE SHOULD NOT EXCEED 40 MG/KG/DAY. GIVE THE DRUG ORALLY HALF AN HOUR BEFORE MEALS. A CHELATING AGENT SHOULD BE CONTINUED UNTIL THE URINE-MERCURY LEVEL FALLS BELOW 50 UG/24 HOURS (DREISBACH, HANDBOOK OF POISONING, 12TH ED.). ANTIDOTE SHOULD BE ADMINISTERED BY QUALIFIED MEDICAL PERSONNEL.

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REACTIVITY SECTION

REACTIVITY:

STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:

MERCURY:

ACETYLENE: FORMATION OF EXPLOSIVE COMPOUND.

ACETYLIC COMPOUNDS: FORMATION OF EXPLOSIVE COMPOUND.

ALUMINUM: CORRODES.

AMINES: MAY FORM EXPLOSIVE COMPOUNDS.

AMMONIA + MOISTURE: FORMS EXPLOSIVE COMPOUND.

BORON DIODPHOSPHIDE: IGNITES IN CONTACT WITH MERCURY VAPORS.

BROMINE: VIOLENT REACTION.

3-BROMOPROPYNE: EXPLOSION HAZARD.

CALCIUM: AMALGAM FORMATION @ 390 C IS VIOLENT.

CHLORINE: IGNITES @ 200-300 C

CHLORINE DIOXIDE: EXPLODES.

COPPER (AND ALLOYS): MAY BE ATTACKED.

ETHYLENE OXIDE + TRACES OF ACETYLENE: MAY FORM EXPLOSIVE ACETYLIDES.

LITHIUM: AMALGAM FORMATION IS VIOLENTLY EXOTHERMIC AND MAY BE EXPLOSIVE.

METHYL AZIDE: PRODUCES SHOCK SENSITIVE MIXTURE.

NITRIC ACID + ALCOHOLS: FORMS FULMINATES CAPABLE OF DETONATION.

OXALIC ACID: FORMS SHOCK SENSITIVE COMPOUND.

OXIDANTS: VIOLENT REACTION.

PEROXYFORMIC ACID: EXPLOSIVE REACTION

POTASSIUM: AMALGAM FORMATION IS VIGOROUSLY EXOTHERMIC AND MAY BE EXPLOSIVE.

RUBIDIUM: VIOLENT EXOTHERMIC REACTION.

SILVER PERCHLORATE + 3-HEXYNE: EXPLODES.

SILVER PERCHLORATE + 2-PENTYNE: EXPLODES.

SODIUM: AMALGAM FORMATION IS VIOLENTLY EXOTHERMIC.

SODIUM CARBIDE: VIGOROUS REACTION.

SULFURIC ACID (HOT): REACTS

TETRACARBONYLNICKEL + OXYGEN: PRODUCES SHOCK SENSITIVE MIXTURE.

DECOMPOSITION:

THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE HIGHLY TOXIC VAPORS OF MERCURY AND MERCURY OXIDES.

POLYMERIZATION:

HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES.

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STORAGE-DISPOSAL

OBSERVE ALL FEDERAL, STATE, AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE ENVIRONMENTAL PROTECTION AGENCY.

**\*\*STORAGE\*\***

STORE AWAY FROM INCOMPATIBLE SUBSTANCES.

**\*\*DISPOSAL\*\***

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 40CFR 262. EPA HAZARDOUS WASTE NUMBER U151.

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CONDITIONS TO AVOID

MAY BURN BUT DOES NOT IGNITE READILY. FLAMMABLE, POISONOUS GASES MAY ACCUMULATE IN TANKS AND HOPPER CARS. MAY IGNITE COMBUSTIBLES (WOOD, PAPER, OIL, ETC.)

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SPILLS AND LEAKS

OCCUPATIONAL-SPILL:  
DO NOT TOUCH SPILLED MATERIAL. STOP LEAK IF YOU CAN DO SO WITHOUT RISK. FOR SMALL SPILLS, TAKE UP WITH SAND OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR LATER DISPOSAL. A MERCURY SPILL KIT MAY ALSO BE USED FOR SMALL SPILLS IN THE WORKPLACE. FOR LARGER SPILLS, DIKE FAR AHEAD OF SPILL FOR LATER DIPOSAL. KEEP UNNECESSARY PEOPLE AWAY. ISOLATE HAZARD AREA AND DENY ENTRY.

REPORTABLE QUANTITY (RQ): 1 POUND  
THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) SECTION 304 REQUIRES THAT A RELEASE EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITY FOR THIS SUBSTANCE BE IMMEDIATELY REPORTED TO THE LOCAL EMERGENCY PLANNING COMMITTEE AND THE STATE EMERGENCY RESPONSE COMMISSION (40CFR 355.40). IF THE RELEASE OF THIS SUBSTANCE IS REPORTABLE UNDER CERCLA SECTION 103, THE NATIONAL RESPONSE CENTER MUST BE NOTIFIED IMMEDIATELY AT (800)422-8802 OR (202)426-2675 IN THE METROPOLITAN WASHINGTON, D.C. AREA (40 CFR 302.6).

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PROTECTIVE EQUIPMENT SECTION

VENTILATION:  
PROVIDE LOCAL EXHAUST OR PROCESS ENCLOSURE VENTILATION TO MEET PUBLISHED EXPOSURE LIMITS.

RESPIRATOR:  
THE FOLLOWING RESPIRATORS AND MAXIMUM USE CONCENTRATIONS ARE RECOMMENDATIONS BY THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, NIOSH POCKET GUIDE TO CHEMICAL HAZARDS; NIOSH CRITERIA DOCUMENTS OR BY THE U.S. DEPARTMENT OF

LABOR, 29 CFR 1910 SUBPART Z.  
THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE WORK PLACE, MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND BE JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

MERCURY, ELEMENTAL:

0.5 MG/M3- ANY CHEMICAL CARTRIDGE RESPIRATOR WITH CARTRIDGES PROVIDING PROTECTION AGAINST MERCURY.  
ANY SUPPLIED-AIR RESPIRATOR.  
ANY SELF-CONTAINED BREATHING APPARATUS.

1.25 MG/M3- ANY SUPPLIED-AIR RESPIRATOR OPERATED IN A CONTINUOUS FLOW MODE.  
ANY POWERED AIR-PURIFYING RESPIRATOR WITH A CANISTER PROVIDING  
PROTECTION AGAINST MERCURY.

2.5 MG/M3- ANY SUPPLIED-AIR RESPIRATOR WITH A FULL FACEPIECE.  
ANY SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE.  
ANY SUPPLIED-AIR RESPIRATOR WITH A TIGHT-FITTING FACEPIECE  
OPERATED IN A CONTINUOUS FLOW MODE.  
ANY CHEMICAL CARTRIDGE RESPIRATOR WITH A FULL FACEPIECE AND  
CARTRIDGES PROVIDING PROTECTION AGAINST MERCURY.  
ANY POWERED AIR-PURIFYING RESPIRATOR WITH A TIGHT-FITTING  
FACEPIECE AND A CANISTER PROVIDING PROTECTION AGAINST MERCURY.

28 MG/M3- ANY SUPPLIED-AIR RESPIRATOR WITH A HALF-MASK AND OPERATED  
IN A PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

ESCAPE- ANY AIR- PURIFYING FULL FACEPIECE RESPIRATOR (GAS MASK) WITH A  
CHIN-STYLE OR FRONT- OR BACK-MOUNTED CANISTER PROVIDING  
PROTECTION AGAINST MERCURY.  
ANY APPROPRIATE ESCAPE-TYPE SELF-CONTAINED BREATHING APPARATUS.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE AND OPERATED IN  
PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE AND OPERATED IN PRESSURE-DEMAND  
OR OTHER POSITIVE PRESSURE MODE IN COMBINATION WITH AN AUXILIARY  
SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER  
POSITIVE PRESSURE MODE.

CLOTHING:

EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT  
TO PREVENT ANY POSSIBILITY OF SKIN CONTACT WITH THIS SUBSTANCE.

GLOVES:

EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS  
SUBSTANCE.

EYE PROTECTION:

EMPLOYEE MUST WEAR SPLASH-PROOF OR DUST RESISTANT SAFETY GOGGLES AND A FACE  
SHIELD TO PREVENT CONTACT WITH THIS SUBSTANCE.

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EMERGENCY WASH FACILITIES:

WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES AND/OR SKIN MAY BE  
EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN  
AND QUICK DRENCH SHOWER WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

AUTHORIZED BY- OCCUPATIONAL HEALTH SERVICES, INC.

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