THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: PERCHLOROETHYLENE
CAS NUMBER: 127-18-4
MEDEX, INC.
3637 LACON ROAD
HILLIARD, OH 43026
ATTN: PLANT MGR./SAFETY DIR.
DUBLIN, OH 43017

GENERAL OR GENERIC ID: CHLORINATED HYDROCARBON
HAZARD CLASSIFICATION: (99) NOT APPLICABLE

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT % (BY WT) PEL TLV NOTE
PERCHLOROETHYLENE 100 100 50 PPM (1)
(1): NIOSH RECOMMENDS A LIMIT OF 50 PPM - 8 HOUR TIME WEIGHTED AVERAGE.

SECTION III-PHYSICAL DATA

PROPERTY REFINEMENT MEASUREMENT
INITIAL BOILING POINT FOR PRODUCT 250.00 DEG F
FOR PRODUCT 121.11 DEG C
9 760.00 MMHG
VAPOR PRESSURE FOR PRODUCT 13.00 MMHG
9 68.00 DEG F
VAPOR DENSITY AIR = 1
S 1.618 - 1.622 DEG F
S 77.00 DEG C
SPECIFIC GRAVITY 5.7
PERCENT VOLATILES 100.00%
EVAPORATION RATE (N-BUTYL ACETATE = 1)

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT NOT APPLICABLE
EXPLOSIVE LIMIT NOT APPLICABLE
EXTINGUISHING MEDIA: WATER FOAM
HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS, CARBON DIOXIDE AND CARBON MONOXIDE, HYDROGEN CHLORIDE, PHOSGENE, VARIOUS HYDROCARBONS, ETC.
SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE USED TO KEEP FIRE-EXPOSED CONTAINERS COOL UNTIL FIRE IS OUT.
WEAR SELF-CONTAINEDbreathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode when fighting fires.
NFPA CODES: HEALTH- 2 FLAMMABILITY- 0 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 100 PPM
THRESHOLD LIMIT VALUE 50 PPM

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
BREATHEING EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, HEADACHE, POSSIBLY UNCONSCIOUSNESS, AND EVEN ASPHYXIAION.
SWALLOWING CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA.

FIRST AID:
IF ON SKIN, THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDRY CONTAMINATED CLOTHING BEFORE RE-USE.
IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

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CONTINUED ON PAGE: 2
IF SWALLOWED, DO NOT INDUCE VOMITING. CALL PHYSICIAN OR TRANSPORT TO AN EMERGENCY FACILITY.

IF INHALED: GET FRESH AIR. IFbreathing is difficult, give artificial respiration. Remove individual to fresh air.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. CALL PHYSICIAN. WEAR PERSONAL PROTECTIVE EYEWEAR AND GET MEDICAL ATTENTION. DO NOT GIVE STIMULANTS. EPINEPHRINE OR EPHEDRINE MAY ADVERSELY AFFECT THE HEART WITH FATAL RESULTS.

SECTION VI-REACTION DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR
STABILITY: STABLE
INCOMPATIBILITY: NOT APPLICABLE

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. DIMINISH AREA OF SPILL TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMpletely CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION WITH OFF-GAS SCRUBBER.

CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF ENHANCED CONTROLS.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS: POLYVINYL ALCOHOL

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES.

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMBEDDED. SINCE EMBEDDED CONTAINERS RETAIN PRODUCT REGISTERS (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE NATIONAL CANCER INSTITUTE HAS CONCLUDED FROM THE RESULTS OF A BIOASSAY THAT PERCHLOROETHYLENE IS A LIVER CARCINGEN WHEN GIVEN ORALLY TO LABORATORY TEST RICE.

OVEREXPOSURE TO MATERIAL HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS: LIVER ABNORMALITIES

OVEREXPOSURE TO MATERIAL HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS: LIVER ABNORMALITIES, KIDNEY DAMAGE, LUNG DAMAGE, BRAIN DAMAGE, EPILEPSY DAMAGE.

THE INFORMATION ACCUMULATED HEREBIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT RECIPIENTS ARE ADVISED TO CONFIRM IN ADDITION OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.
PERCHLOROETHYLENE, INDUSTRIAL GRADE

SPECIFICATIONS

Specific Gravity 25°C/25°C (D-2111) 1.817-1.621
Specific Gravity 20°C/20°C (D-2111) 1.823-1.627
Color, Pt-Co, max (D-2108) 15
Distillation Range, °C (D-1078) 120 122°C
Acidity, % by wt, as HCl, max (D-2989) 0.0005
Alkalinity, % by wt, as NaOH, max (D-2989) 0.005
Nonvolatile Matter, % by wt, max (D-2109) 0.0025
Cloud Point, °C, max 0

SHIPPING DATA:
Pounds Per Gallon, 25°C 13.55
Freezing Point, °C -22.4
Viscosity, cps, 25°C 0.84
Flash Point None
Fire Point None
DOT Label Required None

NOTICE: All precautionary labels and notices should be read and understood by all supervisory personnel and employees before using. Consult Ashland Chemical Company and OSHA regulations for additional safety and health information. Purchaser is responsible for complying with all applicable federal, state or local laws and regulations covering use of the product. Special attention should be given to consumer applications.

( ) Indicates ASTM test procedure

CODE: 37500000

C. A. S. No. 127-18-4