## HOFFMANN-LA ROCHE INC -- PROCARBAZINE HYDROCHLORIDE -- 6505-00-175-6061

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

Product ID: PROCARBAZINE HYDROCHLORIDE

MSDS Date: 07/14/1989

FSC:6505

NIIN:00-175-6061 MSDS Number: BNBQR

=== Responsible Party ===

Company Name: HOFFMANN-LA ROCHE INC

Address:340 KINGSLAND ST

City: NUTLEY

State:NJ

ZIP:07110-1141

Country: US

Info Phone Num: 201-235-3729 OR 201-235-2377

Emergency Phone Num: 201-235-3729

CAGE: 1V283

=== Contractor Identification ===

Company Name: HOFFMAN-LA ROCHE INC

Address:340 KINGSLAND ST

City: NUTLEY

State:NJ

ZIP:07110-1141

Country: US

Phone: 201-235-2323

CAGE: 04493

Company Name: HOFFMANN-LA ROCHE INC.

Address:200 ROCHE DRIVE

City:BELVIDERE

State:NJ

ZIP:07823-1112

Phone: (800) 526-0625

CAGE: 1V283

======= Composition/Information on Ingredients =======

CAS:366-70-1

RTECS #:XS4725000

Fraction by Wt: 100%

Ingred Name: SUPP DATA: WOMEN SHOULD EXERCISE CAUTION REGARDING POTNTL EXPOS. ALSO ADVISABLE FOR NURSING MOTHERS TO EXERCISE CAUTION. RTECS #:9999999ZZ

Ingred Name:SPILL PROC:COVER & MOVE CNTNR TO SAFE HOLDING AREA.CLEAN SPILL AREA THORO. DECONTAM/DISPOSE OF ALL PROTECTIVE EQUIPMENT. RTECS #:9999999ZZ

Ingred Name: WASTE DISP METH: REGULATORY AUTHOR BEFORE DETERMINING FINAL

METHOD OF DISP. DISP OF I/A/W FED, STATE & LOCAL REGS . RTECS #:9999992Z

Ingred Name:OTHER PREC:CLOSED CNTNRS UNDER NITROGEN/IN AMBER BOTTLES.

AVOID ALL PERS CNTCT. DO NOT GET IN EYES, ON SKIN OR (ING 6)

RTECS #:9999992Z

Ingred Name: ING 5: CLTHG. DO NOT BREATHE DUST. AVOID CREATING DUST WHEN HNDLG. USE ONLY W/ADEQ VENT. KEEP CNTNR TIGHTLY CLOSED(ING 7) RTECS #:9999999ZZ

Ingred Name:ING 6:WHEN NOT IN USE. WHEN HNDLG, WEAR PROPER RESP & OTHER
 PERS PROTECTIVE EQUIPMENT. FULL BODY SUIT RECOMMENDED.
RTECS #:9999992Z

Ingred Name:PROT GLOVES:NOT USE POLYVINYL CHLORIDE.INSPECT FREQUENTLY & DISCARD WHEN THEY SHOW CUTS, TEARS, PINHOLES/SIGNS OF WEAR).

RTECS #:9999999ZZ

Ingred Name:OTHER PROT EQUIP:FULLY FASTENED DISP LAB COAT/DISP
 JUMPSUIT. LAB WORK SURFS SHOULD BE COVERED W/STAINLESS STEEL,(ING
 10)

RTECS #:9999992Z

Ingred Name:ING 10:PROTECTIVE CLOTHING OR SURFACE COVERING PROPERLY.
 EMERGENCY EYEWASH, DELUGE SHOWER .
RTECS #:9999999ZZ

Ingred Name:PH: 3-4 (5% IN H\*20)
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:LD50:(ORAL,RAT)785 MG/KG.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ACUTE/CHRONIC:BASED ON SYMPS ASSOC W/THERAPEUTIC USE OF MATL, MOST COMMON EFTS ARE:BLOOD CHANGES, I.E., DECREASE IN NUMBER OF WHITE CELLS & PLATELETS; GI EFTS, E.G., NAUSEA & VOMIT. OTHER REPORTED EFTS INCLUDE:CENTRAL & PERIPHERAL NERVOUS SYS EFTS, E.G., NUMBNESS & TINGLING SENSATIONS, DIZZ; PSYCHO-MOTOR (EFTS OF OVEREXP)

Explanation of Carcinogenicity:PROCARBAZINE HYDROCHLORIDE: GROUP 2 (NTP), GROUP 2A (IARC).

Effects of Overexposure: HLTH HAZ: EFTS, E.G., WEAKNESS & FATIGUE, DROWS, HDCH; SKIN RXN, E.G., DERM & ITCHING; MUSC EFTS, E.G., JOINT PAIN; RESP EFTS, E.G., FLUID BUILD-UP IN PERITONEAL & PLEURAL CAVITY, EDEMA, DFCLTY IN BRTHG, C OUGH; TEMP ABNORM, E.G., CHILLS, FEVER; BLEEDING TENDENCY, E.G., INTRADERMAL HEMMORHAGE, NOSEBLEEDS. MAY CAUSE (SUPP DATA)

Medical Cond Aggravated by Exposure:PROCARBAZINE HYDROCHLORIDE ALLERGY HISTORY, IMPAIRED LIVER/KIDNEY FUNCTION; BLOOD DISTURB; BASED ON

THERAPEUTIC USE OF MATL, ADVERSE RXN MAY OCCUR W/ALCOHOLIC BEVERAGES, E.G., INTENSE WARMTH(SUPP DATA)

First Aid:EYE:FLUSH W/PLENTY OF WATER. IF IRRIT, CALL MD. SKIN:FLUSH W/PLENTY OF WATER & WASH CNTCT AREA W/SOAP & WATER. IF IRRIT, CALL MD. REMOVE CONTAMD CLTHG & SHOES & WASH BEFORE REUSE. INHAL:REMOVE TO FRES H AIR. IF DISCOMFORT OCCURS/PERSISTS, CALL MD. INGEST:CALL MD IMMEDIATELY.

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

Extinguishing Media:AS APPROPRIATE FOR FIRE IN SURROUNDING MATERIALS. Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

Unusual Fire/Explosion Hazard: UNKNOWN.

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

Spill Release Procedures: EVACUATE AREA & DO NOT RETURN UNLESS PROT BY NIOSH/MSHA APPRVD SCBA & PERS PROT CLTHG. SHUT OFF SOURCE OF LEAK/SPILL IF SAFE TO DO SO. AVOID SKIN CNTCT/BRTHG DUSTS. SCOOP/SHOVEL SPILLED MATL INTO SUIT ABLE LABELED OPEN-HEAD DRUM. SECURE DRUM (ING 3)

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions: UNDERGOES OXIDATION BY ATMOSPHERIC O\*2 IN PRESENCE OF MOISTURE/IN AQ SOLN (AUTOXIDATION MAY BE CATALYZED BY METAL IONS, E.G., MANGANESE & COPPER).

Other Precautions: DEGRADES RAPIDLY IN ALCOHOLIC MEDIA. BEST STABILITY IS IN AQUEOUS ACID. VERY SENSITIVE TO ULTRAVIOLET LIGHT. AVOID CNTCT W/AIR & LIGHT. ALL OPERATIONS MUST BE CARRIED OUT UNDER NITROGEN. STORE AT ROOM TEMP IN DRY PLACE IN TIGHTLY (ING 5)

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

Respiratory Protection: USE NIOSH/MSHA APPROVED SUPPLIED-AIR POSITIVE-PRESSURE FULL FACEPIECE RESPIRATOR OR SUPPLIED-AIR HOOD. Ventilation: LOCAL EXHAUST: SPECIFIC VENTILATION REQUIRED.

Ventilation:LOCAL EXHAUST:SPECIFIC VENTILATION REQUIRED MECHANICAL:REQUIRED. OTHER:LABORATORY-TYPE HOOD.

Protective Gloves: DISPOSABLE SURGICAL LATEX (DO (ING 8)

Eye Protection: CHEM WORK GOG & FULL LENGTH FSHLD.

Other Protective Equipment: PROD OPS: WEAR FULL BODY SUIT INCLDG HEAD & FOOT COVERING W/SLEEVES TUCKED UNDER GLOVES & TAPED. FOR LAB OPS: WEAR (ING 9)

Work Hygienic Practices:DECONTAM WORK SURFS & DISPOSE OF PROT CLTHG/SURF COVERING PROPERLY. WASH THOROUGHLY OR SHOWER AFTER HANDLING.

Supplemental Safety and Health

SOL IN H\*20:(200 MG/ML) BUT DECOMPOSES. EFTS OF OVEREXP:CANCER & TERATOGENIC EFTS. MAY AFFECT MALE FERTILITY. MED CONTNS: & REDDENING OF FACE, AS WELL AS W/CERTAIN FOODS & CERTAIN OTHER

DRUGS. NOTE:SI NCE MATL MAY AFFECT MALE REPRO CAPABILITY & DEVELOPING FETUS, MALES/FEMALES PLANNING TO HAVE A CHILD & PREGNANT (ING 2)

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

Melt/Freeze Pt:M.P/F.P Text:433F,223C
pH:ING 12

Solubility in Water: VERY SOL (SUPP DATA)

Appearance and Odor: WHITE TO PALE YELLOW CRYSTALLINE POWDER; SLIGHT, CHARACTERISTIC ODOR.

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

Stability Indicator/Materials to Avoid:YES
Hazardous Decomposition Products:TOXIC FUMES OF OXIDES OF NITROGEN AND
HYDROGEN CHLORIDE.

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

Waste Disposal Methods:DISPOSE OF AS HAZ WASTE. TRANSPORT TO FED & STATE APPRVD FACILITY FOR TREATMENT, STOR/DISP OF HAZ WASTES. BURN IN CHEM INCIN EQUIPPED W/AFTERBURNER & SCRUBBER. HAZ WASTE MANIFEST MUST BE USED. STATE H AZ WASTE REGS MAY VARY; CHECK W/LOCAL (ING 4)

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.