

MATERIAL SAFETY DATA SHEET: MB-1563B, C/M

Section I - General Information

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 Date of Issue:
 1/12/2006 12:00:00 AM
 Chemical Name & Synonyms:
 /A
 Chemical Family:
 LUTARALDEHYDE AQUEOUS SOLUTION
 Manufacturer Name:
 HEMSEARCH DIV. OF NCH CORP.
 Manufacturer Address:
 OX 152170
 RVING, TX 75015
 Prepared By:
 Hollas/Chemist

Supercedes:
 1/12/2006 12:00:00 AM
 Trade Name & Synonyms:
 MB-1563B, C/M
 Formula is a mixture: [V]

Product Code Number: 0681
 Emergency Phone Number: 800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV	PEL	STEL	CAS #
LUTARALDEHYDE CEILING LIMIT	CORROSIVE	N/E 1	N/E 2	0.05 PPM ₁	111-30-8

Section III - Physical Data

Boiling Point (°F): 213°	Specific Gravity (H ₂ O=1): 1.042
Vapor Pressure (mm Hg): 0.2	Color: COLORLESS
Vapor Density (Air=1): 0.7	Odor: MEDICINAL
pH @ 100% : 3.1-4.5	Clarity: TRANSPARENT
% Volatile by Volume: 100	Evaporation Rate (BuAc=1): 0.8
H ₂ O Solubility: COMPLETE	Viscosity: NON-VISCOUS

Section IV - Fire and Explosion Hazard

Flash Point: >200°F
 Flammable Limits: N/A
 LEL: N/A
 Method Used: T.C.C
 UEL: N/A
 Aerosol Level (NFPA 30B): N/A

Extinguishing Media:
☒ Foam
☒ Dry Chemical
☒ Alcohol Foam
☒ Water Spray
☒ CO₂
☐ Other

NFPA 704 Hazard Rating:
 4-Extreme
 3-High
 2-Moderate
 1-Slight
 0-Insignificant
 Health: 3
 Flammability: 1
 Instability: 0
 Special:

Special Fire Fighting Procedures:
 FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING.

Unusual Fire and Explosion Hazards:
 THE USE OF WATER SPRAY (FOG) WHILE EFFECTIVE, MAY CAUSE FROTHING AND FOAMING. NEVER USE A WATER JET AS THIS WILL JUST SPREAD THE FIRE. USE CARE AS SPILLS MAY BE SLIPPERY.

Section V - Health and Hazard Data

Threshold Limit Value:
 NOT ESTABLISHED.

Effects of Overexposure:

Acute: (Short Term Exposure)

EYE CONTACT: CORROSIVE. CAUSES REDNESS, SWELLING OF THE CONJUNCTIVA, BURNS, CORNEAL DAMAGE, AND POSSIBLE BLINDNESS. VAPOR CAUSES IRRITATION SEEN AS REDNESS, STINGING, EXCESS TEAR PRODUCTION, AND SLIGHT EXCESS REDNESS TO THE CONJUNCTIVA. SKIN CONTACT: CAUSES SEVERE IRRITATION SEEN AS REDNESS, ITCHING, AND A BURNING SENSATION. MAY CAUSE ALLERGIC SKIN REACTION SEEN AS DELAYED SKIN RASH WHICH MAY BE FOLLOWED BY BLISTERING, SCALING, AND OTHER SKIN EFFECTS. PRODUCT MAY BE ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. INHALATION: CAUSES BURNS TO THE RESPIRATORY TRACT, NOSE, MOUTH, AND THROAT WITH DISCOMFORT. NASAL DISCHARGE, SNEEZING, COUGHING, RAPID HEARTBEAT, AND CHEST PAIN. INHALATION OF MIST OR VAPORS MAY CAUSE CHEMICAL PNEUMONITIS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL. INGESTION: CORROSIVE. CAUSES BURNS TO THE MOUTH, THROAT, ESOPHAGUS, AND STOMACH WITH NAUSEA AND PAIN. SYMPTOMS MAY INCLUDE VOMITING OF BLOOD. BLOOD LOSS THROUGH DAMAGED TISSUE CAN LEAD TO LOW BLOOD PRESSURE AND SHOCK, AND MAY BE FATAL.

Chronic: (Long Term Exposure)

MAY CAUSE SKIN AND RESPIRATORY SENSITIZATION IN SOME INDIVIDUALS. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: LUNGS, CENTRAL NERVOUS SYSTEM, LIVER, AND BLOOD FORMING ORGANS. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry

☒ Inhalation ☐ Ingestion ☒ Absorption

Emergency First Aid Procedures:

Respiration:

PERSON TO FRESH AIR. IF PERSON IS NOT BREATHING, CALL 911 OR AN AMBULANCE, AND THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY BY MOUTH- TO- MOUTH, IF ABLE. CALL A POISON CONTROL CENTER OR A DOCTOR FOR FURTHER TREATMENT ADVICE.

Contact:

MEDIATELY AND CONTINUOUSLY WITH FLOWING WATER FOR AT LEAST 30 MINUTES. REMOVE CONTACT LENSES AFTER THE FIRST 5 MINUTES AND CONTINUE WASHING. OBTAIN MEDICAL CONSULTATION, PREFERABLY FROM AN OPHTHALMOLOGIST. CALL A POISON CONTROL CENTER OR A DOCTOR IMMEDIATELY FOR TREATMENT ADVICE.

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Skin Contact:

TAKE OFF CONTAMINATED CLOTHING. RINSE SKIN IMMEDIATELY WITH PLENTY OF WATER FOR 15-20 MINUTES. CALL A POISON CONTROL CENTER OR A DOCTOR FOR TREATMENT ADVICE.

Ingestion:

CALL POISON CONTROL CENTER OR A DOCTOR IMMEDIATELY FOR TREATMENT ADVICE. DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING TO DRINK.

Notes to Physician:

ASPIRATION MAY CAUSE LUNG DAMAGE. PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE. MEASURES AGAINST CIRCULATORY SHOCK, RESPIRATORY DEPRESSION, AND CONVULSIONS MAY BE NEEDED. INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL. EMESIS SHOULD NOT BE INDUCED MECHANICALLY OR PHARMACOLOGICALLY. IF IT IS TO BE CONSIDERED NECESSARY TO EVACUATE THE STOMACH CONTENTS, THIS SHOULD BE DONE BY MEANS LEAST LIKELY TO CAUSE ASPIRATION (E.G., GASTRIC LAVAGE AFTER ENDOTRACHEAL INTUBATION). DUE TO THE SEVERELY IRRITATING OR CORROSIVE NATURE OF THE MATERIAL, SWALLOWING MAY LEAD TO ULCERATION AND INFLAMMATION OF THE UPPER ALIMENTARY TRACT WITH HEMORRHAGE AND FLUID LOSS. ALSO, PERFORATION OF THE ESOPHAGUS OR STOMACH MAY OCCUR, LEADING TO MEDIASTITIS OR PERITONITIS AND THE RESULTANT COMPLICATIONS.

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

☐ IARC ☐ NTP ☐ OSHA ☐ ACGIH ☐ Other

VOC CONTENT: 15% BY WEIGHT, 12.3% BY VOLUME, 156 G/L

GLUTARALDEHYDE

ORL-RAT LD50: 134 MG/KG 3.
IHL-RAT LC50: 0.29-0.39 MG/L/4H 3.
SKN-RBT LD50: 2560 MG/KG 3.
SKN-HMN SDT: 6 MG/3D (INTERMITTENT) SEVERE 3.
SKN-RBT SDT: 2 MG/24H SEVERE 3.
EYE-RBT SDT: 1 MG SEVERE 3.

STUDIES IN HUMANS HAVE SHOWN THAT GLUTARALDEHYDE IS NEITHER PHOTOTOXIC NOR A PHOTSENSITIZER. SUBCHRONIC DRINKING WATER STUDIES IN RATS, MICE AND DOGS USING CONCENTRATIONS UP TO 1000 PPM SHOWED NO EVIDENCE FOR ANY TARGET ORGAN TOXICITY. IN VITRO STUDIES FOR GENOTOXICITY USING A VARIETY OF ASSAYS HAVE GIVEN RESULTS VARYING FROM NO ACTIVITY, THROUGH EQUIVOCAL, TO WEAKLY POSITIVE; HOWEVER, ALL IN VIVO STUDIES FOR GENOTOXICITY HAVE BEEN UNIFORMLY NEGATIVE. SEVERAL DEVELOPMENTAL TOXICITY STUDIES HAVE DEMONSTRATED THAT AT MATERNALLY NONTXIC DOSES, GLUTARALDEHYDE DOES NOT PRODUCE FETOTOXIC, EMBRYOTOXIC OR TERATOGENIC EFFECTS. IN A CHRONIC (2 YEAR) CONTINUOUS DRINKING WATER COMBINED CHRONIC TOXICITY-ONCOGENICITY STUDY USING FISCHER 344 RATS, THERE WAS NO EVIDENCE FOR NON-ONCOGENIC TARGET ORGAN TOXICITY. THE ONLY POSSIBLE ONCOGENICITY-RELATED FINDING WAS AN INCREASE IN THE INCIDENCE OF LARGE GRANULAR CELL LYMPHOCYTIC LEUKEMIA IN FEMALE, BUT NOT MALE, RATS. THE PATTERN OF THE RESPONSE SUGGESTS THAT IT DOES NOT REPRESENT DIRECT CHEMICAL CARCINOGENIC ACTIVITY BUT, RATHER, A MODIFYING INFLUENCE ON THE EXPRESSION OF THIS SPONTANEOUS AND COMMONLY OCCURRING NEOPLASM IN THE FISCHER 344 RATS. REPEATED APPLICATIONS OF AQUEOUS SOLUTIONS OF GLUTARALDEHYDE TO THE RAT SKIN FOR 20 DOSAGES OVER A 28-DAY PERIOD AT 50, 100 OR 150 MG/KG/DAY PRODUCED MILD LOCAL INFLAMMATORY EFFECTS, BUT NO EVIDENCE FOR TARGET ORGANS OR TISSUE SYSTEMIC TOXICITY. 4.

OVEREXPOSURES HAVE BEEN KNOWN TO PRODUCE LIVER DAMAGE IN ANIMAL STUDIES. FETOTOXICITY OR EMBRYOTOXICITY IN THE PRESENCE OF MATERNAL TOXICITY HAS SHOWN TO OCCUR IN RABBITS AT A HIGH DOSE OF 45 MG/KG 4.

Section VII - Reactivity Data

Stability

☒ Stable ☐ Unstable

Conditions to Avoid:

AVOID HEAT, HOT SURFACES, SPARKS, AND OPEN FLAMES.

Hazardous Polymerization

☒ Will not occur ☐ May occur

Conditions to Avoid:

N/A

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE. REDUCING AGENTS SUCH AS SODIUM THIOSULFATE; ACIDS AND BASES.

Hazardous Decomposition Products:

OXIDES OF CARBON.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:

WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. SHUT OFF SOURCE OF LEAK. DIKE AND CONTAIN SPILL. ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. THIS PESTICIDE IS TOXIC TO FISH. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER. FLUSH AREA WITH WATER.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

Neutralizing Agent:

WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. IT MAY BE POSSIBLE TO DECONTAMINATE SPILLS BY CAREFUL APPLICATION OF AQUEOUS SODIUM HYDROXIDE OR SODIUM BISULFITE. CARE SHOULD BE TAKEN AS HEAT CAN BE GENERATED BY THE DECONTAMINATION REACTION.

Section IX - Special Protection Information

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE EXCESSIVE LEVELS OF MISTS OR VAPORS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER THE DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIRATOR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (Z88.2-1992). FOR CONCENTRATIONS ABOVE THE TLV AND/OR PEL BUT LESS THAN 10 TIMES THESE LIMITS, A NIOSH APPROVED HALF-FACEPIECE RESPIRATOR EQUIPPED WITH APPROPRIATE CHEMICAL CARTRIDGES MAY BE USED. FOR CONCENTRATIONS GREATER THAN 10 TIMES THE TLV AND/OR PEL, CONSULT THE NIOSH RESPIRATOR DECISION LOGIC FOUND IN PUBLICATION NO. 87-116 OR ANSI Z88.2-1992.

Glove Protection:

BUTYL OR NITRILE RUBBER GLOVES SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eye Protection:

CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN WHEN HANDLING. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

WEAR PROTECTIVE CLOTHING WHEN HANDLING. A SAFETY SHOWER AND AN EYEWASH STATION SHOULD BE AVAILABLE.

Section X - Storage and Handling Information

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Storage Temperature

Max: 80°F Min: 45°F

Storage Conditions

☒ Indoors ☐ Outdoors ☐ Heated ☐ Refrigerated

Precautions to be Taken in Handling and Storing:

ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. PLASTIC CONTAINER MAY CAUSE STATIC IGNITION HAZARD. DO NOT HANDLE OR EMPTY CONTAINERS IN THE PRESENCE OF IGNITION SOURCES. KEEP FROM FREEZING. IF PRODUCT FREEZES ALLOW IT TO SLOWLY WARM TO ROOM TEMPERATURE AND STIR THOROUGHLY BEFORE USING. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES WHICH MAY EXHIBIT THE HAZARDS OF THE PRODUCT. TO AVOID POSSIBLE EXPLOSION DO NOT SURFIZE, CUT, WELD, SOLDER, DRILL, GRIND, OR EXPOSE EMPTY CONTAINERS TO HEAT, HOT SURFACES, SPARKS, OR OPEN FLAMES.

Other Precautions:

KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

Section XI - Regulatory Information

Chemical Name

CAS Number

Upper % Limit

one.

Those Ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 FR part 372.

Please call 1-800-527-9919 for additional information if you are a California customer. This MSDS is not intended for users in the state of California.

Section XIII - References

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 2006. 2. OSHA PEL. 3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINPOweb, 2006. 4. VENDOR'S MSDS. ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING. IRR:IRRITANT, FLAM/FLAMM:FLAMMABLE, TOX:TOXIC, IHL:INHALATION, COMB:COMBUSTIBLE, CORR:CORROSIVE, CARC:CARCINOGENIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, FCC:TAGLIABUE CLOSED CUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, HMN:HUMAN, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NFFA:NATIONAL FIRE PROTECTION ASSOCIATION, ORL:ORAL, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LIMIT, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIAN, PNO:PARTICULATES NOT OTHERWISE CLASSIFIED, PNOR:PARTICULATES NOT OTHERWISE REGULATED, PNOS:PARTICLES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT:STANDARD DRAIZE TEST

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