

MALLINCKRODT BAKER, INC. -- FORMALDEHYDE 37% -- 6550-00-139-1321

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

Product ID: FORMALDEHYDE 37%

MSDS Date: 03/23/1998

FSC: 6550

NIIN: 00-139-1321

Status Code: A

MSDS Number: CJFHQ

=== Responsible Party ===

Company Name: MALLINCKRODT BAKER, INC.

Address: 222 RED SCHOOL LANE

City: PHILLIPSBURG

State: NJ

ZIP: 08865

Country: US

Info Phone Num: 800-582-2537

Emergency Phone Num

: 201-859-2151/800-424-9300 (CHEMTR)

Resp. Party Other MSDS Num.: F5522

Preparer's Name: STRATEGIC SERVICE DIV.

Chemtrec Ind/Phone: (800)424-9300

CAGE: 70829

=== Contractor Identification ===

Company Name: J.T. BAKER CHEMICAL CO.

Address: 222 RED SCHOOL LANE

City: PHILLIPSBURG

State: NJ

ZIP: 08865-2219

Country: US

Phone: 201-859-2151

CAGE: DO870

Company Name: MALLINCKRODT BAKER, INC.

Address: 222 RED SCHOOL LANE

Box: City: PHILLIPSBURG

State: NJ

ZIP: 08865

Country: US

Phone: 800-582-2537

CAGE: 70829

===== Co

Position/Information on Ingredients =====

Ingredient Name: FORMALDEHYDE (SARA III)

CAS: 50-00-0

RTECS #: LP8925000

= Wt: 37.

Other REC Limits: NONE SPECIFIED

OSHA PEL: SEE 1910.1048

ACGIH TLV: C 0.3 PPM; A2; 9293

EPA Rpt Qty: 100 LBS

DOT Rpt Qty: 100 LBS

Ingredient Name: METHYL ALCOHOL (METHANOL) (SARA III)

CAS: 67-56-1

RTECS #: PC1400000

Minimum % Wt: 10.

Maximum % Wt: 15.

Other REC Limits: NONE SPECIFIED

OSHA PEL: S, 200 PPM/250 STEL

ACGIH TLV: S, 200 PPM/250 STEL; 93

EPA Rpt Qty: 5000 LBS

DOT Rpt Qty: 5000 LBS

I

Ingredient Name: WATER.

CAS: 7732-18-5

RTECS #: ZC0110000

Minimum % Wt: 48.

Maximum % Wt: 53.

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

LD50 LC50 Mixture: LD50 (ORAL RAT) IS 800 MG/KG-FORMALDEHYDE

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Reports of Carcinogenicity: NTP: YES IARC: YES OSHA: YES

Health Hazards Acute and Chronic: INHALATION-CAUSES IRRITATION AND SENSITIZATION OF THE RESPIRATORY TRACT. MAY BE FATAL IN HIGH CONCENTRATIONS. INGESTION-LARGER DOS

ES MAY PRODUCE DECREASED BODY

TEMPERATURE, PAIN IN DIGESTIVE TRACT, SHALLOW RESPIRATION, WEAK IRREGULAR PULSE, UNCONSCIOUSNESS AND DEATH. SKIN-TOXIC. MAY CAUSE IRRITATION TO SKIN. FORMALDEHYDE IS A SEVERE SKIN IRRITANT AND SENSITIZER. EYE-VAPORS CAN CAUSE IRRITATION TO THE EYES. HIGHER CONCENTRATIONS OR SPLASHES MAY CAUSE IRREVERSIBLE EYE DAMAGE.

Explanation of Carcinogenicity: CONTAINS FORMALDEHYDE [50-00-0] WHICH IS LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CAR

CINOGEN.

Effects of Overexposure:INHALATION-MAY CAUSE SORE THROAT, COUGHING AND SHORTNESS OF BREATH. INGESTION-CAN CAUSE SEVERE ABDOMINAL PAIN, VIOLENT VOMITING, HEADACHE, AND DIARRHEA. METHANOL COMPONENTS AFFECT THE OPTIC NERVE AND MAY CAUSE BLINDNESS. SKIN-MAY CAUSE REDNESS, PAIN AND POSSIBLY BURNS. CONTACT CAUSES WHITE DISCOLORATION, SMARTING, CRACKING AND SCALING. EYE-VAPORS CAUSES REDNESS, PAIN AND BLURRED VISION.

Medical Cond Aggravated by Exposure:PERSONS WITH PREE
XISTING SKIN

DISORDERS OR EYE PROBLEMS, OR IMPAIRED LIVER, KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THE SUBSTANCE.

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

First Aid:INHALATION:REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF NEEDED.

CALL A PHYSICIAN. EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IMMEDIATELY. SKIN CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MI

N WHILE

REMOVING CONTAMINATED CLOTHING/SHOES. GET MEDICAL ATTENTION IMMEDIATELY. INGESTION: IF SWALLOWED & VICTIM IS CONSCIOUS, DILUTE, INACTIVATE, O R ABSORB THE INGESTED FORMALDEHYDE BY GIVING MILK, ACTIVATED CHARCOAL OR WATER. ANY ORGANIC MATERIAL WILL INACTIVATE FORMALDEHYDE. KEEP AFFECTED PERSON WARM AND AT REST. GET MEDICAL ATTENTION IMMEDIAT ELY.

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

Flash Point Method:CC

Flash Point:=60.C, 140.F

Au

toignition Temp:=300.C, 572.F

Lower Limits:7.0%

Upper Limits:73.0%

Extinguishing Media:WATER SPRAY, DRY CHEMICAL, ALCOHOL FOAM, OR CARBON DIOXIDE.

Fire Fighting Procedures:IN THE EVENT OF A FIRE, WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE EXPLOSIVE WITHIN FLAMMABLE LIMITS. CONTAIN

RS MAY EXPLODE WHEN INVOLVED IN A FIRE.

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

Spill Release Procedures: VENTILATE AREA. REMOVE ALL SOURCES OF IGNITION. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. ISOLATE HAZARD AREA. KEEP UNNECESSARY AND UNPROTECTIVE PERSONNEL FROM ENTERING. CONTAIN SPILL AND RECOVER LIQUID WHEN POSSIBLE. USE NON-SPARKING TOOLS AND EQUIPMENT. COLLECT LIQUID IN APPROPRIATE CONTAINER OR ABSORB WITH AN INERT MATERIAL AND PLACE IN A CHEMICAL WASTE CONTAINER.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions: STORE IN TIGHTLY CLOSED CONTAINER. PROTECT FROM PHYSICAL DAMAGE. STORE IN COOL, DRY, WELL-VENTILATED LOCATION, AWAY FROM ANY AREA WHERE THE FIRE HAZARD MAY BE ACUTE. OUTSIDE OR DETACHED STORAGE IS PREFERRED. SEPARATE FROM INCOMPATIBLES. CONTAINER SHOULD BE BONDED AND GROUNDED FOR TRANSFER.

Other Precautions: KEEP AWAY FROM HEAT, SPARKS AND FLAME. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. DO NOT BREATHE VAPORS. KEEP CONTAINER CLOSED. USE ONLY WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

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

Respiratory Protection: IF THE EXPOSURE LIMIT IS EXCEEDED, A FULL FACEPIECE RESPIRATOR WITH A FORMALDEHYDE CARTRIDGE MAY BE WORN UP TO 50 TIMES THE EXPOSURE LIMIT OR THE MAXIMUM USE CONCENTRATION SPECIFIED BY THE APPROPRIATE REGULATORY AGENCY OR RESPIRATOR SUPPLIER, WHICHEVER IS LOWEST.

Ventilation: LOCAL OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES BELOW THE AIRBORNE EXPOSURE LIMITS.

Protective Gloves: WEAR GLOVES.

Eye Protection: CHEMICAL SAFETY GOGGLES/FULL FACE SHIELD

Other Protective Equipment: WEAR IMPERVIOUS PROTECTIVE CLOTHING, INCLUDING BOOTS, GLOVES, LAB COAT, APRON OR COVERALLS, AS APPROPRIATE TO PREVENT SKIN CONTACT.

Work Hygienic Practices

:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Supplemental Safety and Health

THE PERCEPTION OF FORMALDEHYDE BY ODOR AND EYE IRRITATION BECOMES LESS SENSITIVE WITH TIME AS ONE ADAPTS TO FORMALDEHYDE. THIS CAN LEAD TO OVEREXPOSURE IF A WORKER IS RELYING ON SMELL TO ALERT HIM OR HER TO THE POTENTIAL FOR EXPOSURE.

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

HCC:F6

Boiling Pt:=96.1C,
205.F

Vapor Pres:1.3

Vapor Density:1.0

Spec Gravity:1.08

pH:2.8

Solubility in Water:COMPLETE

Appearance and Odor:CLEAR COLORLESS LIQUID,PUNGENT ODOR

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZERS, STRONG ALKALIES AND ACIDS, ALKALI METALS, AMINES AND AMMONIA, PHENOL AND REDUCING AGENTS.

Stability Condition to Avoid:HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES

Hazardous Decompositio

n Products:FORMALDEHYDE AND CARBON MONOXIDE AND CARBON DIOXIDE.

Conditions to Avoid Polymerization:TRIOXYMETHYLENE PRECIPITATE CAN BE FORMED ON LONG STANDING AT VERY LOW TEMP. NONHAZARDOUS PARAFORMALDEHYDE AT LOW TEMP.

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

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE HANDLED AS HAZARDOUS WASTE AND SENT TO A RCRA APPROVED INCINERATOR OR DISPOSED IN A RCRA APPROVED WASTE FAC

ILITY.

DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH
FEDERAL, STATE AND LOCAL REQUIREMENTS.

===== MSDS Transport Information =====

Transport Information: PROPER SHIPPING NAME: RQ, FORMALDEHYDE SOLUTION,
FLAMMABLE, HAAZARD CLASS: 3,8, UN/NA: UN1198, PACKING GROUP III,
INFORMATION REPORTED FOR PRODUCTS/SIZE: 475 LBS.

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

SARA Title III Information: SARA 311/312: ACUTE: YE
S. CHRONIC: YES.

FIRE: YES. PRESSURE: NO. REACTIVITY: NO.

State Regulatory Information: WARNING: THIS PRODUCT CONTAINS A CHEMICAL
KNOW TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

===== 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 th
is 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.