J.T.BAKER INC. 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865 MATERIAL SAFETY DATA SHEET

24-HOUR EMERGENCY TELEPHONE -- (908) 859-2151

CHEMTREC # (800) 424-9300 -- NATIONAL RESPONSE CENTER # (800) 424-8802

I3480 -03

IODOFORM

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EFFECTIVE: 01/04/94

ISSUED: 01/15/94

J.T.BAKER INC., 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: IODOFORM

COMMON SYNONYMS: TRIIODOMETHANE

CHEMICAL FAMILY: IODATED HYDROCARBONS

FORMULA:

CHI3

FORMULA WT.: 393.73

CAS NO.: NIOSH/RTECS NO.: PB700000

75-47-8

PRODUCT USE: LABORATORY REAGENT

PRODUCT CODES: 2220, P063

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH - 3 SEVERE (LIFE)
FLAMMABILITY - 0 NONE
REACTIVITY - 1 SLIGHT
CONTACT - 2 MODERATE

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

U.S. PRECAUTIONARY LABELING

POISON DANGER

CAUSES IRRITATION. HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. EXCEPTIONAL HEALTH AND CONTACT HAZARDS: READ MATERIAL SAFETY DATA SHEET. KEEP AWAY FROM HEAT, SPARKS, FLAME. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. DO NOT BREATHE DUST. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEOUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

INTERNATIONAL LABELING

HARMFUL BY INHALATION AND IF SWALLOWED. AVOID CONTACT WITH EYES. AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER. KEEP CONTAINER TIGHTLY CLOSED.

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I3480 -03 IODOFORM PAGE: 2 EFFECTIVE: 01/04/94 ISSUED: 01/15/94 ------PRECAUTIONARY LABELING (CONTINUED) ------SAF-T-DATA* STORAGE COLOR CODE: BLUE (HEALTH) ______ SECTION II - COMPONENTS ______ CAS NO. 75-47-8 COMPONENT WEIGHT % OSHA/PEL ACGIH/TLV 0.6 PPM 0.6 PPM IODOFORM 98-100 ______ SECTION III - PHYSICAL DATA VAPOR PRESSURE (MMHG): N/A BOILING POINT: N/A MELTING POINT: 120 C (248 F) VAPOR DENSITY (AIR=1): 13.0 (AT 760 MM HG) SPECIFIC GRAVITY: 4.10 EVAPORATION RATE: N/A (H20=1)% VOLATILES BY VOLUME: 0 SOLUBILITY (H20): NEGLIGIBLE (<0.1%) (21 C)PH: N/A ODOR THRESHOLD (P.P.M.): N/A PHYSICAL STATE: SOLID COEFFICIENT WATER/OIL DISTRIBUTION: N/A APPEARANCE & ODOR: YELLOW POWDER. DISAGREEABLE ODOR.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): N/A

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: UPPER - N/A LOWER - N/A

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

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FIRE EXTINQUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

UNUSUAL FIRE & EXPLOSION HAZARDS

CAN BE AN EXPLOSION HAZARD, ESPECIALLY WHEN HEATED. NOTE: DECOMPOSES AT BOILING POINT.

TOXIC GASES PRODUCED

IODINE, CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE NONE IDENTIFIED.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 10 MG/M (0.6 PPM)

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): NOT ESTABLISHED

TOXICITY OF COMPONENTS

SUBCUTANEOUS MOUSE LD50 FOR IODOFORM

630 MG/KG

INHALATION-7HR RAT LC50 FOR IODOFORM

165 PPM

CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

CARCINOGENICITY

NONE IDENTIFIED.

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

REPRODUCTIVE EFFECTS

NONE IDENTIFIED.

EFFECTS OF OVEREXPOSUR

INHALATION: HEADACHE, COUGHING, DIFFICULT BREATHING, CHEST PAINS,

SEVERE LUNG IRRITATION, PULMONARY EDEMA

SKIN CONTACT: IRRITATION, PROLONGED CONTACT MAY CAUSE DERMATITIS

EYE CONTACT: IRRITATION

SKIN ABSORPTION: MAY BE HARMFUL

INGESTION: IRRITATION AND BURNS TO MOUTH AND STOMACH, CENTRAL

NERVOUS SYSTEM DEPRESSION

CHRONIC EFFECTS: KIDNEY DAMAGE, LIVER DAMAGE

TARGET ORGANS

EYES, SKIN, MUCOUS MEMBRANES, CENTRAL NERVOUS SYSTEM, LIVER, KIDNEYS,

RESPIRATORY SYSTEM, LUNGS

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

SKIN DISORDERS, CHRONIC RESPIRATORY DISEASE

PRIMARY ROUTES OF ENTRY

INHALATION, INGESTION, SKIN CONTACT, EYE CONTACT, ABSORPTION

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: CALL A PHYSICIAN. IF SWALLOWED, IF CONSCIOUS, GIVE LARGE

AMOUNTS OF WATER. INDUCE VOMITING.

INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE

ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE

OXYGEN.

SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF

WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED

CLOTHING AND SHOES. WASH CLOTHING BEFORE RE-USE.

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: YES CHRONIC: YES FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: NO CERCLA HAZARDOUS SUBSTANCE: NO SARA 313 TOXIC CHEMICALS: NO TSCA INVENTORY: YES

SECTION VI - REACTIVITY DATA

SECTION VI - REACTIVITY DATA

SBILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT, FRICTION, SHOCK

INCOMPATIBLES: STRONG OXIDIZING AGENTS, MERCURIC OXIDE, SILVER

NITRATE, TANNIN, CALOMEL

DECOMPOSITION PRODUCTS: IODINE, CARBON MONOXIDE, CARBON DIOXIDE

SECTION VII - SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. WITH

CLEAN SHOVEL, CAREFULLY PLACE MATERIAL INTO CLEAN, DRY CONTAINER AND

COVER; REMOVE FROM AREA. FLUSH SPILL AREA WITH WATER.

DISPOSAL PROCEDURE

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

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV

REQUIREMENTS.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS

EXIST. IF AIRBORNE CONCENTRATION IS HIGH, A DUST/MIST RESPIRATOR IS RECOMMENDED. IF CONCENTRATION EXCEEDS CAPACITY OF RESPIRATOR, A SELF-CONTAINED BREATHING

APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOGGLES, UNIFORM, APRON, PROPER GLOVES ARE

RECOMMENDED.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: BLUE (HEALTH)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN SECURE POISON AREA. STORE IN A COOL, WELL-VENTILATED AREA AWAY FROM SOURCES OF HEAT, FLAME, OR IGNITION.

ISOLATE FROM INCOMPATIBLE MATERIALS.

SPECIAL PRECAUTIONS

THIS PRODUCT MAY EXPLODE WHEN HEATED.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

MARINE POLLUTANTS: NO

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)

AIR (I.C.A.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

U.S. CUSTOMS HARMONIZATION NUMBER: 29033020503

NOTE: WHEN HANDLING LIQUID PRODUCTS, SECONDARY PROTECTIVE CONTAINERS MUST BE USED FOR CARRYING.

-N/A = NOT APPLICABLE, OR NOT AVAILABLE;

N/E = NOT ESTABLISHED. -

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL OR BREATHING CHEMICAL VAPORS/FUMES.

EXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE OR INTERACTION WITH OTHER CHEMICALS OR MATERIALS. BAKER WARRANTS THAT THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE LABEL.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

THE USER SHOULD RECOGNIZE THAT THIS PRODUCT CAN CAUSE SEVERE INJURY AND EVEN DEATH, ESPECIALLY IF IMPROPERLY HANDLED OR THE KNOWN DANGERS OF USE ARE NOT HEEDED. READ ALL PRECAUTIONARY INFORMATION. AS NEW DOCUMENTED GENERAL SAFETY INFORMATION BECOMES AVAILABLE, BAKER WILL PERIODICALLY REVISE THIS MATERIAL SAFETY DATA SHEET.

NOTE: CHEMTREC, CANUTEC, AND NATIONAL RESPONSE CENTER EMERGENCY TELEPHONE NUMBERS ARE TO BE USED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS. ALL NON-EMERGENCY QUESTIONS SHOULD BE DIRECTED TO CUSTOMER SERVICE (300-JTBAKER) FOR ASSISTANCE.

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APPROVED BY QUALITY ASSURANCE DEPARTMENT.