

MATERIAL SAFETY DATA SHEET

PARAFORMALDEHYDE, POWDER
CAROLINA BIOLOGICAL

Revised: 09/05/00
Replaces: None
Printed: 07/08/06

PRODUCT IDENTIFICATION

PRODUCT NAME: PARAFORMALDEHYDE
COMMON SYNONYMS: PARAFORM; POLYOXYMETHYLENE
CHEMICAL FAMILY: ALDEHYDES
FORMULA: (CH₂O)_N
FORMULA WT.: N/A
CAS NO.: 30525-89-4
NIOSH/RTECS NO.: RV0540000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: S898

CHEMTREC # (800) 424-9300 NATIONAL RESPONSE CENTER # (800) 424-8802
J.T.BAKER INC. 222 RED SCHOOL LANE PHILLIPSBURG, NJ 08865 24-HOUR
EMERGENCY TELEPHONE -- (201) 859-2151

EFFECTIVE: 01/04/94 ISSUED: 04/08/95
REVISION #03

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH	-	3	SEVERE (CANCER CAUSING)
FLAMMABILITY	-	2	MODERATE
REACTIVITY	-	2	MODERATE
CONTACT	-	3	SEVERE (CORROSIVE)

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

U.S. PRECAUTIONARY LABELING

WARNING

CAUSES EYE BURNS. MAY IRRITATE SKIN. DUST MAY FORM FLAMMABLE OR
EXPLOSIVE
MIXTURE WITH AIR. NOTE: REPORTED AS CAUSING CANCER IN LABORATORY
ANIMALS.
EXERCISE DUE CARE.
KEEP AWAY FROM HEAT, SPARKS, FLAME. DO NOT GET IN EYES, ON SKIN, ON
CLOTHING.
AVOID BREATHING VAPOR. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH
ADEQUATE
VENTILATION. WASH THOROUGHLY AFTER HANDLING. IN CASE OF FIRE, USE
ALCOHOL
FOAM, DRY CHEMICAL, CARBON DIOXIDE - WATER MAY BE INEFFECTIVE. FLUSH
SPILL
AREA WITH WATER SPRAY.

PRECAUTIONARY LABELING (CONTINUED)

INTERNATIONAL LABELING

AVOID CONTACT WITH EYES. AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH

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PLENTY OF WATER. KEEP CONTAINER TIGHTLY CLOSED.

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

COMPONENTS

COMPONENT	CAS NO.	WEIGHT %	OSHA/PEL
ACGIH/TLV			
PARAFORMALDEHYDE	30525-89-4	90-100	N/E N/E
FORMALDEHYDE	50-00-0	>0.10	0.75 PPM 1
PPM			

PHYSICAL DATA

BOILING POINT: N/A VAPOR PRESSURE (MMHG): <2
(20 C)

MELTING POINT: 120 C (248 F) VAPOR DENSITY (AIR=1): 1.03
(AT 760 MM HG)

SPECIFIC GRAVITY: 1.40 EVAPORATION RATE: N/A
(H2O=1)

SOLUBILITY(H2O): APPRECIABLE (>10%) % VOLATILES BY VOLUME: N/A
(21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): N/A PHYSICAL STATE: SOLID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: WHITE POWDER. ALDEHYDE-LIKE ODOR.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): 69 C (158 F) NFPA 704M RATING: 2-2-0

AUTOIGNITION TEMPERATURE: 299 C (572 F)

FLAMMABLE LIMITS: UPPER - 73.0 % LOWER - 7.0 %

FIRE EXTINGUISHING MEDIA

USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE. (WATER MAY BE INEFFECTIVE.)

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE. MOVE CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

UNUSUAL FIRE & EXPLOSION HAZARDS

CAN BE AN EXPLOSION HAZARD, ESPECIALLY WHEN HEATED.

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TOXIC GASES PRODUCED

FORMALDEHYDE, CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT

NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE

NONE IDENTIFIED.

HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): NOT ESTABLISHED

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): NOT ESTABLISHED

TOXICITY OF COMPONENTS

ORAL RAT LD50 FOR PARAFORMALDEHYDE 800
MG/KG

ORAL RAT LD50 FOR FORMALDEHYDE 800
MG/KG

SKIN RABBIT LD50 FOR FORMALDEHYDE 270
MG/KG

SUBCUTANEOUS RAT LD50 FOR FORMALDEHYDE 420
MG/KG

INHALATION RAT LC50 FOR FORMALDEHYDE 590
MG/KG

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

CARCINOGENICITY

SOME EXPERIMENTS WITH TEST ANIMALS INDICATED THAT THIS SUBSTANCE MAY
BE

ANTICIPATED TO BE A CARCINOGEN.

REPRODUCTIVE EFFECTS

NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION: IRRITATION OF UPPER RESPIRATORY TRACT, HEADACHE,
COUGHING, DIZZINESS, DIFFICULT BREATHING

SKIN CONTACT: IRRITATION

EYE CONTACT: IRRITATION, MAY CAUSE BURNS

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: NAUSEA, VOMITING, SEVERE BURNS TO MOUTH, THROAT,
AND STOMACH

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CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS

NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY

INGESTION, INHALATION, EYE CONTACT, SKIN CONTACT

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. PROMPT ACTION IS ESSENTIAL.

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

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: YES PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: YES CONTAINS FORMALDEHYDE (RQ = 1,000
LBS, TPQ = 500 LBS)

CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS PARAFORMALDEHYDE (RQ = 1000
LBS) AND FORMALDEHYDE (RQ = 1000 LBS)

SARA 313 TOXIC CHEMICALS: YES CONTAINS FORMALDEHYDE
GENERIC CLASS: GENERIC CLASS REMOVED FROM CFR:
7/1/91

TSCA INVENTORY: YES

REACTIVITY DATA

STABILITY: STABLE
OCCUR

HAZARDOUS POLYMERIZATION: WILL NOT

CONDITIONS TO AVOID: HEAT, FLAME, OTHER SOURCES OF IGNITION

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INCOMPATIBLES: STRONG OXIDIZING AGENTS, ORGANIC ACIDS, OXIDES,
ALKALIES, STRONG ACIDS, STRONG BASES, AMINES

DECOMPOSITION PRODUCTS: FORMALDEHYDE, CARBON MONOXIDE, CARBON DIOXIDE

SPILL & DISPOSAL PROCEDURES

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

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

OFF IGNITION SOURCES; NO FLARES, SMOKING, OR FLAMES IN AREA.

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.

EPA HAZARDOUS WASTE NUMBER: D002 (CORROSIVE WASTE)

INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST

VENTILATION TO

KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION
CONDITIONS

DUST/MIST

EXIST. IF AIRBORNE CONCENTRATION IS HIGH, A

EXCEEDS

RESPIRATOR IS RECOMMENDED. IF CONCENTRATION

BREATHING

CAPACITY OF RESPIRATOR, A SELF-CONTAINED

APPARATUS IS ADVISED.

EYE/SKIN PROTECTION:
GLOVES ARE

SAFETY GOGGLES, UNIFORM, APRON, NEOPRENE

RECOMMENDED.

STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, DRY, WELL-
VENTILATED,

FLAMMABLE LIQUID STORAGE AREA OR CABINET.

TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: PARAFORMALDEHYDE

HAZARD CLASS: 4.1

UN/NA: UN2213 REPORTABLE QUANTITY: 1000 LBS. PACKAGING GROUP: III

LABELS: NONE

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REGULATORY REFERENCES: 49CFR 172.101

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: PARAFORMALDEHYDE
HAZARD CLASS: 4.1 I.M.O. PAGE: 4164
UN: UN2213 MARINE POLLUTANTS: NO PACKAGING GROUP: III
LABELS: NO LABEL REQUIRED PACKAGE TO BE MARKED: CLASS 4.1
REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

AIR (I.C.A.O.)

PROPER SHIPPING NAME: PARAFORMALDEHYDE
HAZARD CLASS: 4.1 PACKAGING GROUP: III
UN: UN2213
LABELS: 4 FLAMMABLE SOLID
REGULATORY REFERENCES: 49CFR PART 175; ICAO=== WE BELIEVE THE
TRANSPORTATION

FACTUAL AND DATA AND REFERENCES CONTAINED HEREIN TO BE
MEANT AS THE OPINION OF QUALIFIED EXPERTS. THE DATA IS
PRODUCT A GUIDE TO THE OVERALL CLASSIFICATION OF THE
BE AND IS NOT PACKAGE SIZE SPECIFIC, NOR SHOULD IT
THE TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH
CONSIDERATION, COMPANY ASSUMES LEGAL RESPONSIBILITY.=== THE
IN INFORMATION IS OFFERED SOLELY FOR YOUR
LOCAL INVESTIGATION, AND VERIFICATION. ANY USE OF THE
49CFR INFORMATION MUST BE DETERMINED BY THE USER TO BE
TRAINING 49 ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND
CFR 173.1(B). LAWS AND REGULATIONS. SEE SHIPPER REQUIREMENTS
171.2, CERTIFICATION 172.204, AND EMPLOYEE

U.S. CUSTOMS HARMONIZATION NUMBER: 2912600000

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 CANADIAN 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 USE IS

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