

MATERIAL SAFETY DATA SHEET

THIOUREA
CAROLINA BIOLOGICAL

Revised: 09/05/00
Replaces: None
Printed: 21/06/06

PRODUCT IDENTIFICATION

PRODUCT NAME: THIOUREA
COMMON SYNONYMS: THIOCARBAMIDE; ISOTHIOUREA; 2-THIOUREA
CHEMICAL FAMILY: SULFUR COMPOUNDS
FORMULA: NH₂CSNH₂
FORMULA WT.: 76.12
CAS NO.: 62-56-6
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 4123
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 #05

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH	-	3	SEVERE (CANCER CAUSING)
FLAMMABILITY	-	1	SLIGHT
REACTIVITY	-	1	SLIGHT
CONTACT	-	2	MODERATE

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

U.S. PRECAUTIONARY LABELING

WARNING

CAUSES IRRITATION. HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.

NOTE: REPORTED AS CAUSING CANCER IN LABORATORY ANIMALS. EXERCISE DUE CARE.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING. DO NOT BREATHE DUST. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

INTERNATIONAL LABELING

TOXIC BY INHALATION AND IF SWALLOWED. POSSIBLE RISKS OF IRREVERSIBLE EFFECTS.

DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN.

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

COMPONENTS

COMPONENT	CAS NO.	WEIGHT %	OSHA/PEL
ACGIH/TLV			
THIOUREA	62-56-6	99-100	N/E N/E

PHYSICAL DATA

BOILING POINT: N/A VAPOR PRESSURE (MMHG): N/A
MELTING POINT: 177 C (350 F) DECOMPOSES VAPOR DENSITY (AIR=1): 2.6
(AT 760 MM HG)
SPECIFIC GRAVITY: 1.41 EVAPORATION RATE: N/A
(H₂O=1)
SOLUBILITY(H₂O): MODERATE (1-10%) % VOLATILES BY VOLUME: 0

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SKIN CONTACT: SKIN ULCERATION, SKIN DISCOLORATION, ECZEMA
EYE CONTACT: IRRITATION
SKIN ABSORPTION: MAY BE HARMFUL
INGESTION: ALLERGIC SKIN ERUPTIONS, INHIBIT BLOOD COAGULATION,
THYROID DAMAGE
CHRONIC EFFECTS: DAMAGE TO BLOOD, LIVER, THYROID
TARGET ORGANS
EYES, SKIN, LIVER, THYROID
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
SKIN DISORDERS, THYROID DISORDERS, LIVER DISORDERS, BLOOD DISORDERS
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. PROMPT ACTION IS ESSENTIAL.
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.
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: YES CONTAINS CARBAMIDE, THIO (RQ = 1 LB)
SARA 313 TOXIC CHEMICALS: YES CONTAINS THIOUREA
GENERIC CLASS: GENERIC CLASS REMOVED FROM CFR:

7/1/91

TSCA INVENTORY: YES

STATE LISTS: FOR PRODUCTS SOLD IN THE STATE OF CALIFORNIA, THE STATE
REQUIRES

THAT WE PROVIDE TO USERS AND THEIR EMPLOYEES THE FOLLOWING MESSAGE:
WARNING:

THIS PRODUCT IS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE
CANCER.

REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT
OCCUR

CONDITIONS TO AVOID: HEAT, DUSTING

INCOMPATIBLES: STRONG OXIDIZING AGENTS, ACROLEIN, NITRIC ACID,
HYDROGEN PEROXIDE

DECOMPOSITION PRODUCTS: AMMONIA, OXIDES OF SULFUR, CARBON MONOXIDE,

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CARBON

DIOXIDE, OXIDES OF NITROGEN

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.

EPA HAZARDOUS WASTE NUMBER: U219 (TOXIC WASTE)

INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST

VENTILATION TO

KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: A RESPIRATOR WITH DUST/MIST FILTER IS RECOMMENDED. IF

AIRBORNE CONCENTRATION EXCEEDS CAPACITY OF

RESPIRATOR,

A SELF-CONTAINED BREATHING APPARATUS IS ADVISED.

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

RECOMMENDED.

STORAGE AND HANDLING PRECAUTIONS

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

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN SECURE POISON AREA. DO NOT STORE

NEAR OXIDIZING MATERIALS.

TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: POISONOUS SOLIDS, N.O.S. (THIOUREA)

HAZARD CLASS: 6.1

UN/NA: UN2811 REPORTABLE QUANTITY: 10 LBS. PACKAGING GROUP: III

LABELS: 6 HARMFUL - STOW AWAY FROM FOOD STUFFS

REGULATORY REFERENCES: 49CFR 172.101; 173.365

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: POISONOUS SOLIDS, N.O.S. (THIOUREA)

HAZARD CLASS: 6.1 I.M.O. PAGE: 6236

UN: UN2811 MARINE POLLUTANTS: NO PACKAGING GROUP: III

LABELS: 6 TOXIC

REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

AIR (I.C.A.O.)

PROPER SHIPPING NAME: POISONOUS SOLIDS, N.O.S. (THIOUREA)

HAZARD CLASS: 6.1

UN: UN2811 PACKAGING GROUP: III

LABELS: 6 TOXIC

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REGULATORY REFERENCES: 49CFR PART 175; ICAO=== WE BELIEVE THE
TRANSPORTATION
FACTUAL AND
MEANT AS
PRODUCT
BE
THE
CONSIDERATION,
IN
LOCAL
49CFR
TRAINING 49

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

U.S. CUSTOMS HARMONIZATION NUMBER: 29309050608

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
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

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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 (1-800-JTBAKER ASSISTANCE. COPYRIGHT 1995 J.T.BAKER INC. * TRADEMARKS OF J.T.BAKER INC. APPROVED BY QUALITY ASSURANCE DEPARTMENT.