

MATERIAL SAFETY DATA SHEET

SODIUM (I) NITRATE
J.T.BAKER MSDS

Revised: 09/05/00
Replaces: None
Printed: 27/12/01

PRODUCT IDENTIFICATION

PRODUCT NAME: SODIUM NITRATE, CRYSTAL
COMMON SYNONYMS: SODIUM (I) NITRATE; NITRIC ACID, SODIUM SALT; SODA NITER;
CHILE SALTPETER
CHEMICAL FAMILY: INORGANIC SODIUM COMPOUNDS
FORMULA: NaNO_3
FORMULA WT.: 84.99
CAS NO.: 7631-99-4
NIOSH/RTECS NO.: WC5600000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 3771,4501,3770

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	-	1	SLIGHT
FLAMMABILITY	-	0	NONE
REACTIVITY	-	3	SEVERE (OXIDIZER)
CONTACT	-	1	SLIGHT

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT

U.S. PRECAUTIONARY LABELING

DANGER

CAUSES IRRITATION. HARMFUL IF SWALLOWED OR INHALED. STRONG OXIDIZER.
CONTACT

WITH COMBUSTIBLE MATERIALS, FLAMMABLE MATERIALS, OR POWDERED METALS CAN
CAUSE

FIRE OR EXPLOSION.

KEEP FROM CONTACT WITH CLOTHING AND OTHER COMBUSTIBLE MATERIALS. DO NOT
STORE

NEAR COMBUSTIBLE MATERIALS. AVOID CONTACT WITH EYES, SKIN, CLOTHING.

KEEP IN

TIGHTLY CLOSED CONTAINER. WASH THOROUGHLY AFTER HANDLING. IN CASE OF
FIRE,
SOAK WITH WATER. IN CASE OF SPILL, SWEEP UP AND REMOVE. FLUSH SPILL
AREA

WITH WATER.

PRECAUTIONARY LABELING (CONTINUED)

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INTERNATIONAL LABELING

CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE. CAUSES BURNS.
KEEP AWAY FROM HEAT. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
WEAR
SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

SAF-T-DATA* STORAGE COLOR CODE: YELLOW (REACTIVE)

COMPONENTS

COMPONENT	CAS NO.	WEIGHT %	OSHA/PEL	ACGIH/TLV
SODIUM NITRATE	7631-99-4	99-100	N/E	N/E

PHYSICAL DATA

BOILING POINT: N/A VAPOR PRESSURE (MMHG): N/A
MELTING POINT: 306 C (582 F) VAPOR DENSITY (AIR=1): 2.90
(AT 760 MM HG)
SPECIFIC GRAVITY: 2.26 EVAPORATION RATE: N/A
(H2O=1)
SOLUBILITY(H2O): APPRECIABLE (>10%) % VOLATILES BY VOLUME: 0
(21 C)

PH: N/A

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

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: COLORLESS CRYSTALS OR POWDER. ODORLESS.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): N/A NFPA 704M RATING: 0-0-0
OXY

AUTOIGNITION TEMPERATURE: N/A

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

FIRE EXTINGUISHING MEDIA
USE WATER SPRAY.

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.

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UNUSUAL FIRE & EXPLOSION HAZARDS

STRONG OXIDIZER. CONTACT WITH COMBUSTIBLE MATERIALS, FLAMMABLE MATERIALS,
OR POWDERED METALS CAN CAUSE FIRE OR EXPLOSION. CAN REACT VIOLENTLY WITH
SHOCK, FRICTION OR HEAT.

TOXIC GASES PRODUCED

OXIDES OF NITROGEN

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 SODIUM NITRATE 1267
MG/KG

ORAL RABBIT LD50 FOR SODIUM NITRATE 2680
MG/KG

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

CARCINOGENICITY

NONE IDENTIFIED.

REPRODUCTIVE EFFECTS

NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION: IRRITATION OF UPPER RESPIRATORY TRACT, CYANOSIS,
UNCONSCIOUSNESS, HEADACHE, NAUSEA, VOMITING,
DIZZINESS,

WEAKNESS, RAPID INEFFECTIVE BREATHING, LOW BLOOD
PRESSURE, CONVULSIONS

SKIN CONTACT: IRRITATION, PROLONGED CONTACT MAY CAUSE DERMATITIS

EYE CONTACT: IRRITATION

SKIN ABSORPTION: NONE IDENTIFIED

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UNCONSCIOUSNESS, HEADACHE, NAUSEA, VOMITING, DIZZINESS, WEAKNESS,
RAPID INEFFECTIVE BREATHING, LOW BLOOD PRESSURE,
CONVULSIONS

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS
NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY
INHALATION, INGESTION, SKIN CONTACT, EYE CONTACT

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: CALL A PHYSICIAN. IF SWALLOWED, IF CONSCIOUS,
IMMEDIATELY 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, FLUSH SKIN WITH WATER.

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

EXTREMELY HAZARDOUS SUBSTANCE: NO

CERCLA HAZARDOUS SUBSTANCE: NO

SARA 313 TOXIC CHEMICALS: YES

GENERIC CLASS:

CONTAINS SODIUM NITRATE

GENERIC CLASS REMOVED FROM CFR:

7/1/91

TSCA INVENTORY: YES

REACTIVITY DATA

STABILITY: STABLE
OCCUR

HAZARDOUS POLYMERIZATION: WILL NOT

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CONDITIONS TO AVOID: SHOCK, FRICTION, HEAT

INCOMPATIBLES: CYANIDES, COMBUSTIBLE MATERIALS, ORGANIC
MATERIALS,
STRONG REDUCING AGENTS, ALUMINUM

DECOMPOSITION PRODUCTS: OXIDES OF NITROGEN

SPILL & DISPOSAL PROCEDURES

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

WEAR SUITABLE PROTECTIVE CLOTHING. KEEP COMBUSTIBLES (WOOD, PAPER,
OIL,

ETC.) AWAY FROM SPILLED MATERIAL. 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: D001 (IGNITABLE 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

AN

EXIST. IF AIRBORNE CONCENTRATION IS HIGH, USE

APPROPRIATE RESPIRATOR OR DUST MASK.

EYE/SKIN PROTECTION: SAFETY GOGGLES, BUTYL RUBBER GLOVES ARE
RECOMMENDED.

STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: YELLOW (REACTIVE)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE SEPARATELY AND AWAY FROM
FLAMMABLE

AND COMBUSTIBLE MATERIALS.

TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: SODIUM NITRATE

HAZARD CLASS: 5.1

UN/NA: UN1498

PACKAGING GROUP: III

LABELS: 5.1 OXIDIZER

REGULATORY REFERENCES: 49CFR 172.101

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INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: SODIUM NITRATE
HAZARD CLASS: 5.1 I.M.O. PAGE: 5180
UN: UN1498 MARINE POLLUTANTS: NO PACKAGING GROUP: III
LABELS: 5.1 OXIDIZING AGENT
REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

AIR (I.C.A.O.)

PROPER SHIPPING NAME: SODIUM NITRATE
HAZARD CLASS: 5.1 PACKAGING GROUP: III
UN: UN1498
LABELS: 5.1 OXIDIZER
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
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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
LAW AND REGULATIONS. SEE SHIPPER REQUIREMENTS
171.2, CERTIFICATION 172.204, AND EMPLOYEE
CFR 173.1(B).

U.S. CUSTOMS HARMONIZATION NUMBER: 28342900005

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

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