SECTION 1. - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -
CATALOG #: 72245
NAME: NICKEL(II) CARBONATE BASIC HYDRATE

SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -
CAS #: 3333-67-3
EC NO: 222-068-2
SYNONYMS
CARBONIC ACID, NICKEL SALT (1:1) * C.I. 77779 * NICKEL(2+) CARBONATE *
NICKEL MONOCARBONATE * NICKELOUS CARBONATE *

SECTION 3. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
TOXIC
MAY CAUSE CANCER.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
DO NOT BREATHE DUST.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
KEEP CONTAINER TIGHTLY CLOSED IN A COOL WELL-VENTILATED PLACE.

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - -
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
DISCARD CONTAMINATED CLOTHING AND SHOES.

SECTION 5. - - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -
EXTINGUISHING MEDIA
WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - - -
EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - -
REFER TO SECTION 8.

SECTION 8. - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -
WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
DO NOT BREATHE DUST.
AVOID ALL CONTACT.
WASH THOROUGHLY AFTER HANDLING.
CARCINOGEN.
HARMFUL SOLID.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

APPEARANCE AND ODOR
SOLID.

PHYSICAL PROPERTIES
SOLUBILITY:
- WATER -INSOLUBLE
- (DILUTE ACIDS): SOLUBLE

SECTION 10. - - - - - - - STABILITY AND REACTIVITY - - - - - - -

INCOMPATIBILITIES
- STRONG OXIDIZING AGENTS
- STRONG ACIDS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
- TOXIC FUMES OF:
  - CARBON MONOXIDE, CARBON DIOXIDE

SECTION 11. - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - -

ACUTE EFFECTS
- HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
- MAY CAUSE IRRITATION.
- EXPOSURE CAN CAUSE:
  - GASTROINTESTINAL DISTURBANCES

CHRONIC EFFECTS
- CARCINOGEN.
- LUNG IRRITATION
- DERMATITIS

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: QR6200000
NICKEL(II) CARBONATE (1:1)

TARGET ORGAN DATA
- PERIPHERAL NERVE AND SENSATION (FLACCID PARALYSIS WITHOUT ANESTHESIA)
- LUNGS, THORAX OR RESPIRATION (DYSPNAE)
- LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
- TUMORIGENIC (EQUIVOCAL TUMORIGENIC AGENT BY RTECS CRITERIA)
- TUMORIGENIC (TUMORS AT SITE OF APPLICATION)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

SECTION 12. - - - - - - - ECOLOGICAL INFORMATION - - - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - -

- BURY IN A LANDFILL SITE APPROVED FOR THE DISPOSAL OF CHEMICAL
  AND HAZARDOUS WASTES.
- OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - - - TRANSPORT INFORMATION - - - - - - -

- CONTACT FLUKA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - - - REGULATORY INFORMATION - - - - - - -

EUROPEAN INFORMATION
EC INDEX NO: 028-010-00-0
TOXIC
R 22
HARMFUL IF SWALLOWED.
R 40
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.
R 43
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
S 22
DO NOT BREATHE DUST.
S 36/37
WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.

REVIEWS, STANDARDS, AND REGULATIONS
OEL=MAK
ACGIH TLV-TWA 1 MG(NI)/M3
DTLVS* TLV/BEI, 1996
IARC CANCER REVIEW: ANIMAL SUFFICIENT EVIDENCE
IMEMDT 11, 75, 1976
IARC CANCER REVIEW: ANIMAL LIMITED EVIDENCE
IMEMDT 49, 257, 1990
MSHA STANDARD-AIR: TWA 1 MG(NI)/M3
DTLVS* 3, 178, 1971
OSHA PEL (GEN INDU): 8H TWA 1 MG(NI)/M3
CFRGR 29, 1910.1000, 1994
OSHA PEL (CONSTRUC): 8H TWA 1 MG(NI)/M3
CFRGR 29, 1926.55, 1994
OSHA PEL (SHIPYARD): 8H TWA 1 MG(NI)/M3
CFRGR 29, 1915.1000, 1993
OSHA PEL (FED CONT): 8H TWA 1 MG(NI)/M3
CFRGR 41, 50-204.50, 1994
OEL-GERMANY; CARCINOGEN JAN 1993
OEL-SWEDEN; TWA 0.1 MG/M3; CARCINOGEN JAN 1993
OEL-SWITZERLAND; TWA 0.5 MG/M3; SKIN; CARCINOGEN JAN 1993
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO NICKEL, INORGANIC-AIR: 10H CA TWA 0.015 MG(NI)/M3
NIOSH* DHHS #92-100, 1992
NOHS 1974: HDZ 81905; NIS 12; TNF 349; NOS 9; TNE 4696
NOES 1983: HDZ 81905; NIS 28; TNF 864; NOS 23; TNE 13040; TFE 2017
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
NTP 7TH ANNUAL REPORT ON CARCINOGENS, 1992: ANTICIPATED TO BE
CARCINOGEN

U.S. INFORMATION
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

SECTION 16. OTHER INFORMATION
THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH,
FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING
OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR
PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.
COPYRIGHT 1997 SIGMA CHEMICAL CO., ALDRICH CHEMICAL CO., INC.,
FLUKA CHEMIE AG
LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY