

Valid 02/1999 - 04/1999

Aldrich Chemical Co., Inc.
1001 West St. Paul
Milwaukee, WI 53233 USA
Tel: 414-273-3850

M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -
CATALOG #: 339350
NAME: NICKEL(II) CHLORIDE, 98%

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -
CAS #: 7718-54-9
MF: CL2NI
EC NO: 231-743-0

SYNONYMS
NICKEL CHLORIDE * NICKEL DICHLORIDE * NICKELOUS CHLORIDE *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS
TOXIC
MAY CAUSE CANCER.
TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
TARGET ORGAN(S):
LUNGS
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
VERY HYGROSCOPIC
KEEP TIGHTLY CLOSED.

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.
WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -
EXTINGUISHING MEDIA
NONCOMBUSTIBLE.
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
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.

AVOID RAISING DUST.

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.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

TOXIC.

CARCINOGEN.

IRRITANT.

SENSITIZER.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

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

APPEARANCE AND ODOR

ORANGE POWDER

PHYSICAL PROPERTIES

SPECIFIC GRAVITY: 3.550

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

STABILITY

STABLE.

INCOMPATIBILITIES

PEROXIDES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

HYDROGEN CHLORIDE GAS

NICKEL/NICKEL OXIDES

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

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.

CAUSES EYE AND SKIN IRRITATION.

MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER

RESPIRATORY TRACT.

CAUSES DERMATITIS.

MAY CAUSE ALLERGIC RESPIRATORY REACTION.

EXPOSURE CAN CAUSE:

GASTROINTESTINAL DISTURBANCES

CHRONIC EFFECTS

CARCINOGEN.

TARGET ORGAN(S):

LUNGS

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

RTECS #: QR6475000

NICKEL(II) CHLORIDE (1:2)

TOXICITY DATA

ORL-RAT LD50:681 MG/KG	INJPD2 23,153,1991
IPR-RAT LD50:20597 UG/KG	TXCYAC 35,47,1985
IVN-RAT LD50:68100 UG/KG	INJPD2 23,153,1991
ORL-MUS LD50:369 MG/KG	INJPD2 23,153,1991
IPR-MUS LD50:11 MG/KG	TXCYAC 64,19,1990
IVN-MUS LD50:20 MG/KG	INJPD2 23,153,1991
IMS-RBT LD50:27 MG/KG	JPETAB 87,119,1946

TARGET ORGAN DATA

BEHAVIORAL (SOMNOLENCE)

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)

EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)

EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)

EFFECTS ON FERTILITY (LITTER SIZE)
EFFECTS ON FERTILITY (OTHER MEASURES OF FERTILITY)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
EFFECTS ON EMBRYO OR FETUS (FETAL DEATH)
EFFECTS ON EMBRYO OR FETUS (OTHER EFFECTS TO EMBRYO OR FETUS)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (OTHER DEVELOPMENTAL ABNORMALITIES)
EFFECTS ON NEWBORN (LIVE BIRTH INDEX)
EFFECTS ON NEWBORN (VIABILITY INDEX)
EFFECTS ON NEWBORN (GROWTH STATISTICS)
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 - - - - -
THE MATERIAL SHOULD BE DISSOLVED IN 1) WATER; 2) ACID SOLUTION OR 3) OXIDIZED TO A WATER-SOLUBLE STATE. PRECIPITATE THE MATERIAL AS THE SULFIDE, ADJUSTING THE PH OF THE SOLUTION TO 7 TO COMPLETE PRECIPITATION. FILTER THE INSOLUBLES AND DISPOSE OF THEM IN A HAZARDOUS-WASTE SITE. DESTROY ANY EXCESS SULFIDE WITH SODIUM HYPOCHLORITE. NEUTRALIZE THE SOLUTION BEFORE FLUSHING DOWN THE DRAIN. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -
CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

TOXIC
R 45
MAY CAUSE CANCER.
R 23/24/25
TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R 42/43
MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.
R 36/37/38
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
S 45
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
S 26
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
S 28
AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER.
S 27
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
S 36/37/39
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
ACGIH TLV-TWA 0.1 MG(NI)/M3
IARC CANCER REVIEW:ANIMAL LIMITED EVIDENCE
MSHA STANDARD-AIR:TWA 1 MG(NI)/M3
DTLVS* 3,178,1971
OSHA PEL (GEN INDU):8H TWA 1 MG(NI)/M3
CFRGBR 29,1910.1000,1994
OSHA PEL (CONSTRUC):8H TWA 1 MG(NI)/M3
CFRGBR 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 1 MG(NI)/M3
CFRGBR 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 1 MG(NI)/M3
CFRGBR 41,50-204.50,1994
OEL-ARAB REPUBLIC OF EGYPT:TWA 0.1 MG(NI)/M3 JAN 1993
DTLVS* TLV/BEI,1997
IMEMDT 49,257,1990

OEL-AUSTRALIA:TWA 1 MG(NI)/M3 JAN 1993
OEL-BELGIUM:TWA 1 MG(NI)/M3 (INSOLUBLE COMPOUNDS) JAN 1993
OEL-DENMARK:TWA 0.05 MG(NI)/M3;CARCINOGEN JAN 1993
OEL-DENMARK:TWA 1 MG(NI)/M3 (INSOLUBLE COMPOUNDS) JAN 1993
OEL-FINLAND:TWA 0.1 MG(NI)/M3;SKIN;CARCINOGEN (INSOLUBLE COMPOUNDS) JAN 1993
OEL-FRANCE:TWA 1 MG(NI)/M3 JAN 1993
OEL-GERMANY;CARCINOGEN JAN 1993
OEL-HUNGARY:STEL 0.005 MG(NI)/M3;CARCINOGEN (INSOLUBLE COMPOUNDS) JAN 1993
OEL-JAPAN:TWA 1 MG(NI)/M3;CARCINOGEN JAN 1993
OEL-THE NETHERLANDS:TWA 0.1 MG(NI)/M3 JAN 1993
OEL-THE NETHERLANDS:TWA 1 MG(NI)/M3 (INSOLUBLE COMPOUNDS) JAN 1993
OEL-THE PHILIPPINES:TWA 1 MG(NI)/M3 JAN 1993
OEL-RUSSIA:STEL 0.05 MG(NI)/M3 JAN 1993
OEL-SWEDEN:TWA 0.5 MG(NI)/M3 JAN 1993
OEL-SWITZERLAND:TWA 0.5 MG(NI)/M3 (INSOLUBLE COMPOUNDS) JAN 1993
OEL-SWITZERLAND:TWA 0.5 MG(NI)/M3;CARCINOGEN JAN 1993
OEL-THAILAND:TWA 1 MG(NI)/M3 JAN 1993
OEL-UNITED KINGDOM:TWA 0.5 MG(NI)/M3 (INSOLUBLE COMPOUNDS) JAN 1993
OEL-UNITED KINGDOM:TWA 1 MG(NI)/M3 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
NOES 1983: HZD X7161; NIS 14; TNF 356; NOS 15; TNE 7059; TFE 2869
EPA GENETOX PROGRAM 1988, NEGATIVE: B SUBTILIS REC ASSAY; TRP REVERSION
EPA GENETOX PROGRAM 1988, INCONCLUSIVE: HOST-MEDIATED ASSAY
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

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 1998 SIGMA-ALDRICH CO.
LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY