Material Safety Data Sheet

SECTION 1. - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - -
CATALOG #: 205222
NAME: SODIUM CYANIDE, 95%, A.C.S. REAGENT

SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - -
CAS #: 143-33-9
MF: CNNA
EC NO: 205-599-4
SYNONYM:
Cianuro di sodio (Italian) * CYANIDE OF SODIUM * CYANOBIK *
Cyano (French) * CYMAG * HYDROCYANIC ACID,
SODIUM SALT * KYANID SODNY (Czech) * PRUSSIATE OF SODA * RCRA WASTE
NUMBER P106 * SODIUM CYANIDE (AGSH) *

SECTION 3. - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
HIGHLY TOXIC (USA)
VERY TOXIC (EU)
VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
CAUSES BURNS.
CONTACT WITH ACIDS LIBERATES VERY TOXIC GAS.
READILY ABSORBED THROUGH SKIN.
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
CARDIOVASCULAR SYSTEM
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.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
DO NOT BREATHE DUST.

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 SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN IMMEDIATELY.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - -
EXTINGUISHING MEDIA
APPROPRIATE FOAM.
DO NOT USE CARBON DIOXIDE EXTINGUISHER ON THIS MATERIAL.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.
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.
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.
FACE SHIELD (8-INCH MINIMUM).
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.
WASH THOROUGHLY AFTER HANDLING.
DISCARD CONTAMINATED CLOTHING AND SHOES.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - -
APPEARANCE AND ODOR
WHITE POWDER WITH CHUNKS

PHYSICAL PROPERTIES
MELTING POINT: 563.7 C
VAPOR PRESSURE: 1MM 817 C
SOLUBILITY:
WATER ~Z26130
VAPOR DENSITY: 1.7
PH: 11.0 - 12.0

SECTION 10. - - - - - - - STABILITY AND REACTIVITY - - - - - -
STABILITY
STABLE.
CONDITIONS TO AVOID
MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.
INCOMPATIBILITIES
AVOID CONTACT WITH ACID.
STRONG OXIDIZING AGENTS
CARBON DIOXIDE.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
HYDROGEN CYANIDE
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - - - TOXICOLOGICAL INFORMATION - - - - - -
ACUTE EFFECTS
MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDema OF THE
LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND
VOMITING.
LUNG IRRITATION
CYANOSIS
CNS DEPRESSION
CHRONIC EFFECTS
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
BLOOD
LUNGS
CARDIOVASCULAR SYSTEM
THYROID
RTECS #: ZF7525000
SODIUM CYANIDE

TOXICITY DATA
ORL-WMN LDLO: 40 MG/KG FSINDR 38, 173, 1988
ORL-CHD LDLO: 100 MG/KG FSINDR 38, 173, 1988
ORL-HMN LD50: 2800UG/KG
ORL-MAN LD50: 6557UG/KG
ORL-HMN LD50: 2857UG/KG
UNR-MAN LD50: 2206UG/KG
ORL-RAT LD50: 6440UG/KG
IPR-RAT LD50: 4300UG/KG
IPR-MUS LD50: 4900UG/KG
SCU-MUS LD50: 3500UG/KG
UNR-MUS LD50: 10MG/KG
SCU-DOG LD50: 5360UG/KG
SKN-RBT LD50: 10400UG/KG
IMS-RBT LD50: 1666UG/KG
OCU-RBT LD50: 5048UG/KG
SCU-GPG LD50: 5800UG/KG
ORL-CKN LD50: 21MG/KG
ORL-QAL LD50: 8500UG/KG
ORL-DCK LD50: 2500UG/KG
ORL-DOM LD50: 4MG/KG
ORL-MAM LD50: 8MG/KG
ORL-BWD LD50: 4MG/KG
NTIS** OTS0528336
APTOA6 1,18,1945
34ZIAZ -1,191,1969
85DCAI 2,73,1970
282PAK 3,13,1972
GISAAA 43(12), 90,1978
NTIS** OTS0528336
AJEPAP 179,60,1954
IGAYAY 112,861,1980
JAMAAP 149,113,1952
NTIS** OTS0536153
JACTDZ 1(3),120,1982
JACTDZ 1(3),120,1982
MELAAD 46,221,1955
JWIDAW 22,538,1986
JWIDAW 22,538,1986
NTIS** OTS0530251
TXAPA9 45,359,1978
BECTA6 23,211,1979
JWIDAW 22,538,1986

TARGET ORGAN DATA
PERIPHERAL NERVE AND SENSATION (SPASTIC PARALYSIS WITH/WITHOUT SENSORY CH
SENSE ORGANS AND SPECIAL SENSES (OTHER EYE EFFECTS)
BEHAVIORAL (SONNOLENCE)
BEHAVIORAL (HALLUCINATIONS, DISTORTED PERCEPTIONS)
BEHAVIORAL (TREMOR)
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
BEHAVIORAL (FLUID INTAKE)
BEHAVIORAL (CHANGE IN MOTOR ACTIVITY)
BEHAVIORAL (MUSCLE WEAKNESS)
BEHAVIORAL (ATAXIA)
LUNGS, THORAX OR RESPIRATION (DYSPNAA)
LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
GASTROINTESTINAL (CHANGES IN STRUCTURE OR FUNCTION OF SALIVARY GLANDS)
GASTROINTESTINAL (GASTRITIS)
GASTROINTESTINAL (OTHER CHANGES)

ADDITIONAL INFORMATION
ORAL LETHAL DOSE IN HUMANS IS 2.8MG/KG.
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

SECTION 12. - - - - - - - - - ECOCLOGICAL INFORMATION - - - - - - - - -
DATA NOT YET AVAILABLE.
SECTION 13. - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - -
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
THIS MATERIAL.
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
VERY TOXIC
R 26/27/28
VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R 34
CAUSES BURNS.
R 32
CONTACT WITH ACIDS LIBERATES VERY TOXIC GAS.
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 36/37/39
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
S 22
DO NOT BREATHE DUST.
REVIEWS, STANDARDS, AND REGULATIONS
OEL=MAK
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
FERAC 54.7740.1989
OSHA PEL (GEN INDU): 8H TWA 5 MG/(CN)/M3
CFR86 29.1910.1000.1994
OSHA PEL (CONSTRUC): 8H TWA 5 MG/(CN)/M3
CFR86 29.1926.55.1994
OSHA PEL (SHIYARD): 8H TWA 5 MG/(CN)/M3
CFR86 29.1915.1000.1993
OSHA PEL (FED CONT): 8H TWA 5 MG/(CN)/M3
CFR86 41.50-204.50.1994
OEL-AUSTRALIA: TWA 5 MG/M3, SKIN, JAN1993
OEL-AUSTRIA: MAK 5 MG/(CN)/M3, SKIN, JAN1999
OEL-DENMARK: TWA 5 MG/M3, SKIN, JAN1999
OEL-FRANCE: VME 5 MG/(CN)/M3, SKIN, JAN1999
OEL-GERMANY: MAK 5 MG/(CN)/M3, SKIN, JAN1999
OEL-POLAND: TWA 0.3 MG/(CN)/M3, CEILING 10 MG/(CN)/M3, JAN1999
OEL-SWITZERLAND: MAK-W 5 MG/M3, KZG-W 10 MG/M3, SKIN, JAN1999
OEL-UNITED KINGDOM: TWA 5 MG/(CN)/M3, SKIN, SEP2000
OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO CYANIDE-AIR:CL 4.7 PPM/(CN)/10M
NIOSH* DHHS #92-100.1992
NOES 1974; HDZ 68950; NIS 68; TNE 3285; NOS 41; TNE 27329
NOES 1983; HDZ 68950; NIS 74; TNE 4423; NOS 63; TNE 66484; TFE 15327
EPA TSCA SECTION 8 (B) CHEMICAL INVENTORY
EPA TSCA SECTION 8 (D) UNPUBLISHED HEALTH/SAFETY STUDIES
EPA TSCA SECTION 8 (E) RISK NOTIFICATION, 8EHQ-0693-9229
ON EPA IRIS DATABASE
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001
NTP TOXICITY STUDIES, RPT# TOX-37, OCTOBER 2000
U.S. INFORMATION
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.
SECTION 16. OTHER INFORMATION-
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