

DUPONT -- CYANOBRIK -- 6810-00-281-2039

===== Product Identification =====

Product ID:CYANOBRIK

MSDS Date:09/18/1998

FSC:6810

NIIN:00-281-2039

MSDS Number: CJVDW

=== Responsible Party ===

Company Name:DUPONT

Address:1001 MARKET STREET

City:WILMINGTON

State:DE

ZIP:19898

Country:US

Info Phone Num:800-441-7515

Emergency Phone Num:800-441-3637/901-357-1546

Preparer's Name:NOT PROVIDED.

Chemtrec Ind/Ph

one:(800)424-9300

CAGE:18873

=== Contractor Identification ===

Company Name:CHEMICAL COMMODITIES AGENCY, INC.

Address:27447 PACIFIC STREET

Box:City:HIGHLAND

State:CA

ZIP:92346-2640

Country:US

Phone:909-864-2310

CAGE:60777

Company Name:E.I. DUPONT DE NEMOURS & CO

Address:1007 MARKET STREET

Box:City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-441-7515;800-441-9442

CAGE:18873

Company Name:LOS ANGELES CHEMICAL CO

Address:4545 ARDINE ST

Box:1987

City:SOUTH GATE

State:CA

ZIP:90280

Country:US

Ph

one:213-562-9500
Contract Num:SP0450-99-M-C103
CAGE:75656

=====
Composition/Information on Ingredients
=====

Ingred Name:SODIUM CYANIDE (SARA III)
CAS:143-33-9
RTECS #:VZ7525000
> Wt:96.
Other REC Limits:5 MG/M3 AEL DUPONT
OSHA PEL:5 MG/M3 (CN)
ACGIH TLV:S; 5 MG/M3 (CN)
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:OTHER SODIUM SALTS
< Wt:4.
Other REC Limits:NOT PROVIDED.
OSHA PEL:NOT PROVIDED.
ACGIH TLV:NOT PROVIDED.

=====
Hazards Identification
=====

LD50 LC50 Mixture:LD50 (ORAL, RAT) 15 MG/KG
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:POTENTIAL HEALTH EFFECTS: MAY BE FATAL
IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN. SKIN CONTACT MAY
CAUSE IRRITATION WITH RASH, BURNS OR ULCERATION. EYE CONTACT MAY
CAUSE IRRITATION WITH DISCOMFORT, TEARING, BLURRED VISION, CORNEAL
ULCERATION. INHALATION, INGESTION
OR SKIN CONTACT MAY CAUSE NAUSEA,
HEADACHE, DIZZINESS, VOMITING, DROP IN BLOOD PRESSURE, WEAKNESS,
NOSEBLEEDS, NASAL IRRITATION AND LOSS OF CONSCIOUSNESS. CNS
STIMULATION FOLLOWED BY DEPRESSION MAY OCCUR WITH CONVULSION AND
DEATH. HIGHER CONCENTRATION MAY LEAD TO RAPID RESPIRATION AND
PULSE, CYANOSIS, ACIDOSIS, PULMONARY EDEMA, DAMAGE TO OPTIC NERVE.
Explanation of Carcinogenicity:NONE OF THE COMPONENTS PRESENT IN THIS
MATERIAL AT CONCENTRATIONS EQUAL TO OR GREATER THAN

0.1% ARE LISTED

BY IARC, NTP, OSHA, OR ACGIH AS A CARCINOGEN.

Effects of Overexposure: MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN. SKIN CONTACT MAY CAUSE IRRITATION WITH RASH, BURNS OR ULCERATION. EYE CONTACT MAY CAUSE IRRITATION WITH DISCOMFORT, TEARING, BLURRED VISION, CORNEAL ULCERATION. INHALATION, INGESTION OR SKIN CONTACT MAY CAUSE NAUSEA, HEADACHE, DIZZINESS, VOMITING, DROP IN BLOOD PRESSURE, WEAKNESS, NOSEBLEEDS, NASAL IRRITATION AND LOSS OF CONSCIOUSNESS. CNS STIMULATION FOLLOWED BY DEPRESSION MAY OCCUR WITH CONVULSION AND DEATH. HIGHER CONCENTRATION MAY LEAD TO RAPID RESPIRATION AND PULSE, CYANOSIS, ACIDOSIS, PULMONARY EDEMA, DAMAGE TO OPTIC NERVE.

Medical Cond Aggravated by Exposure: INDIVIDUALS WITH PRE-EXISTING DISEASES OF THE CENTRAL NERVOUS SYSTEM MAY HAVE INCREASED SUSCEPTIBILITY TO THE TOXICITY OF EXCESSIVE EXPOSURES.

===== First Aid Measures =====

First Aid: INHALATION:

IF CONSCIOUSNESS IS IMPAIRED, OXYGEN AND AMYL NITRITE SHOULD BE ADMINISTERED. CARRY PATIENT TO AN UNCONTAMINATED ATMOSPHERE. CALL A PHYSICIAN. SKIN CONTACT: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR UP TO 5 MINUTES AND REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN. EYE CONTACT: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF WATER FOR UP TO 5 MINUTES, HOLDING EYE LIDS OPEN. DO NOT USE ACIDS OR ALKALIS. SEE A PHYSICIAN. INGESTION: IF CONSCIOUS, RINSE MOUTH AND GIVE ACTIVATED CHARCOAL SLURRY. IF CONSCIOUSNESS IS IMPAIRED, GIVE OXYGEN AND AMYL NITRITE CALL A PHYSICIAN.

===== Fire Fighting Measures =====

Flash Point: NOT FLAMMABLE

Extinguishing Media: USE WATER ON FIRES NEAR CYANIDE, BUT MINIMIZE AMOUNT OF WATER IF CONTAINERS ARE OPENED OR BURNED TO AVOID RUNOFF. DO NOT USE CARBON DIOXIDE ON WET CYANIDE.

Fire Fighting Procedures: CYANIDE DISSOLVES READILY IN WATER; THEREFORE,

CYANIDE SOLUTION RUNOFF MAY OCCUR IF CONTAINERS ARE OPENED OR BURNED. CONTAIN TO AVOID ENVIRONMENTAL/SAFETY PROBLEMS. CONTAINED CYANIDE SOLUTION CAN BE DETOXIFIED WITH HYPOCHLORITE. IT MAY BE DESIRABLE TO LET A FIRE BURN OUT BY ITSELF.

Unusual Fire/Explosion Hazard:DO NOT USE CARBON DIOXIDE AS EXTINGUISHING MEDIA BECAUSE IT REACTS WITH SODIUM CYANIDE TO PRODUCE HYDROGEN CYANIDE IF MOISTURE IS PRESENT.

===== Accidental Release Measures =====

Sp

Spill Release Procedures:USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT DURING CLEAN UP. SHOVEL AND SWEEP UP SPILLED MATERIAL INTO A COVERED CONTAINER OR PLASTIC BAG PENDING TRANSFER. COVER AND KEEP SPILLAGE DRY. FLUSH SPILL AREA WITH A DILUTE SOLUTION OF SODIUM HYPOCHLORITE OR CALCIUM HYPOCHLORITE TO DESTROY CYANIDE. CALL DUPONT FOR GUIDANCE. COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS. REPORTABLE QUANTITY = 10 LBS

Neutralizing Agent:DILUTE SOLUTION OF SODIUM HYPOCHLORITE OR HYDROGEN PEROXIDE

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN PROPERLY LABELED CONTAINERS, IN DRY, WELL VENTILATED, SECURE AREAS. KEEP CONTAINERS CLOSED AND CONTENTS DRY. DO NOT STORE WITH ACIDS OR ACID SALTS, CONTAINERS WITH WATER/WEAK ALKALIS/OXIDIZERS. DO NOT HANDLE/STORE FOOD, BEVERAGES OR TOBACCO IN CYANIDE AREAS. DO NOT STORE NEAR COMBUSTIBLES.

Other Precautions:ALWAYS HAVE CYANIDE ANTIDOTE KITS ON HAND. DO NOT BREATHE DUST, MIST OR CYANIDE GAS. DO NOT GET IN EYES. AVOID CONTACT WITH SKIN AND CLOTHING. DO NOT CARRY FOODSTUFFS, BEVERAGES, OR TOBACCO WHERE CONTAMINATION WITH CYANIDE IS POSSIBLE. WASH THOROUGHLY AFTER HANDLING. WASH CONTAMINATED CLOTHING BEFORE REUSE.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NIOSH APPROVED DISPOSABLE AIR PURIFYING RESPIRATOR WITH APPROPRIATE PARTICULATE FILTER;SELF-CONTAINING

INED

BREATHING AIR SUPPLY(IN CASE OF EMERGENCY);HYDROGEN CYANIDE DETECTOR;FIRST AID AND MEDICAL TREATMENT SUPPLIES, INCLUDING OXYGEN RESUSCITATORS.

Ventilation:USE SUFFICIENT VENTILATION TO KEEP EMPLOYEE EXPOSURE BELOW RECOMMENDED LIMITS.

Protective Gloves:RUBBER GLOVES(BUTYL OR NEOPRENE PREFERRED)

Eye Protection:CHEMICAL SPLASH GOGGLES

Other Protective Equipment:FACE SHIELD,RUBBER SUIT,APRONS,BOOTS.

Work Hygienic Practices:NOT PROVIDED.

Supplemental Safety and Health

NONE

====

===== Physical/Chemical Properties =====

HCC:T2

NRC/State Lic Num:NOT RELEVANT.

Boiling Pt:=1496.C, 2724.8F

Melt/Freeze Pt:=564.C, #####F

Vapor Pres:NEGLIGIBLE

Vapor Density:NIL

Spec Gravity:1.6

pH:11.3-11.7 5-25%

Viscosity:NOT APPLICABLE.

Evaporation Rate & Reference:NOT RELEVANT.

Solubility in Water:37%WT @ 20C (68F)

Appearance and Odor:WHITE SOLID,GRANULAR, BRIQUETTES. ODORLESS (AMMONIA AND/OR HCN ODOR IF DAMP).

Percent Volatiles by Volume:NOT RELEVANT

Corros

ion Rate:NOT PROVIDED.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

LARGE AMOUNTS OF POISONOUS,FLAMMABLE HYDROGEN CYANIDE GAS EVOLVED FROM CONTACT WITH ACIDS.REACTS VIOLENTLY WITH STRONG OXIDIZING AGENTS WHEN HEATED. WATER OR WEAK ALKALINE SOLUTIONS CAN PRODUCE DANGEROUS AMOUNTS HYDROGEN CY

Stability Condition to Avoid:NOT PROVIDED.

Hazardous Decomposition Products:MOISTURE WILL CAUSE SLOW DECOMPOSITION, RELEASIN

G POISONOUS HYDROGEN CYANIDE AND AMMONIA
GSES..

===== Toxicological Information =====

Toxicological Information:DERMAL LD50: 11.28-14.63 MG/KG IN RABBITS.
LC50: NOT AVAILABLE.

===== Ecological Information =====

Ecological:AQUATIC TOXICITY: 96 HOUR LC50 - FATHEAD MINNOWS: 0.43-0.66
MG/L, EXTREMELY TOXIC.

===== Disposal Considerations =====

Waste Disposal Methods:THIS MATERIAL MAY BE A
RCRA HAZARDOUS WASTE. DO
NOT FLUSH CYANIDE INTO SEWERS WHICH MAY CONTAIN AN ACID. DETOXCIFY
WITH SODIUM HYPOCHLORITE, HYDROGEN PEROXIDE OR CALCIUM
HYPOCHLORITE. COMPLY WITH FEDE RAL, STATE AND LOCAL REGULATIONS ON
DISPOSAL METHODS OR TRANSFER TO A LICENSED DISPOSAL CONTRACTOR.

===== MSDS Transport Information =====

Transport Information:DOT: SODIUM CYANIDE, 6.1, UN1689. LABEL: TOXIC,
MARINE POLLUTANT, PACKING GROUP: I. REPORTABLE QUANTITY (RQ):
10
POUNDS STEEL DRUM: 50 KG, 100 KG.

===== Regulatory Information =====

SARA Title III Information:SECTION 311, 312: ACUTE: YES. REACTIVITY:
YES. SARA EXTREMELY HAZARDOUS SUBSTANCE: YES. CERCLA: HAZARDOUS
SUBSTANCE: YES. SARA TOXIC CHEMICAL: YES.
Federal Regulatory Information:TSCA INVENTORY STATUS:
REPORTED/INCLUDED.
State Regulatory Information:NOT PROVIDED.

===== Other Information =====

Disclaimer

(provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.