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SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: S4125  
NAME: SEMICARBAZIDE HCL

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 563-41-7  
MF: CH5N3O  
EC NO: 209-247-0

SYNONYMS

AMIDOUREA HYDROCHLORIDE \* AMINOUREA HYDROCHLORIDE \* CARBAMYLHYDRAZINE  
HYDROCHLORIDE \* HYDRAZINECARBOXAMIDE MONOHYDROCHLORIDE \*  
SEMICARBAZIDE HYDROCHLORIDE \*

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

LABEL PRECAUTIONARY STATEMENTS

TOXIC (USA)  
HARMFUL (EU)  
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.  
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.  
POSSIBLE CARCINOGEN.  
POSSIBLE TERATOGEN.  
POSSIBLE MUTAGEN.  
WEAR SUITABLE PROTECTIVE CLOTHING.  
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 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.  
POSSIBLE CARCINOGEN.  
POSSIBLE MUTAGEN.  
POSSIBLE TERATOGEN.  
TOXIC.  
KEEP TIGHTLY CLOSED.  
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -  
APPEARANCE AND ODOR  
WHITE POWDER  
PHYSICAL PROPERTIES  
MELTING POINT: 175 C TO 177 C (DEC)

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -  
INCOMPATIBILITIES  
STRONG OXIDIZING AGENTS  
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
TOXIC FUMES OF:  
CARBON MONOXIDE, CARBON DIOXIDE  
NITROGEN OXIDES  
HYDROGEN CHLORIDE GAS

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -  
ACUTE EFFECTS  
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.  
MAY CAUSE IRRITATION.  
CHRONIC EFFECTS  
POSSIBLE CARCINOGEN.  
POSSIBLE TERATOGEN.  
OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDER(S) BASED ON TESTS WITH  
LABORATORY ANIMALS.  
POSSIBLE MUTAGEN.  
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: VT3500000  
SEMICARBAZIDE, MONOHYDROCHLORIDE

TOXICITY DATA  
ORL-MUS LD50:225 MG/KG                      ARZNAD 10,686,1960  
IPR-MUS LD50:145 MG/KG                      FATOAO 24,623,1961  
SCU-MUS LD50:167 MG/KG                      ABMGJ 21,635,1968

TARGET ORGAN DATA  
BEHAVIORAL (SOMNOLENCE)  
BEHAVIORAL (EXCITEMENT)  
BEHAVIORAL (ATAXIA)  
EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)  
EFFECTS ON FERTILITY (LITTER SIZE)  
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)  
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)  
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 - - - - -  
DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A  
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.  
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

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

HARMFUL  
R 20/21/22  
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.  
R 40  
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.  
S 36  
WEAR SUITABLE PROTECTIVE CLOTHING.  
S 22  
DO NOT BREATHE DUST.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK  
IARC CANCER REVIEW:ANIMAL LIMITED EVIDENCE            IMEMDT 12,209,1976  
IARC CANCER REVIEW:HUMAN NO ADEQUATE DATA           IMEMDT 12,209,1976  
IARC CANCER REVIEW:GROUP 3                            IMSUDL 7,56,1987  
NOES 1983: HZD X7190; NIS 2; TNF 41; NOS 2; TNE 2815; TFE 1055  
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

SECTION 16. - - - - - OTHER INFORMATION- - - - -  
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