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Sigma Chemical Co.  
P.O. Box 14508  
St. Louis, MO 63178 USA  
Phone: 314-771-5765

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 #: G4505  
NAME: GUANIDINE HYDROCHLORIDE

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

CAS #: 50-01-1  
MF: CH5N3  
EC NO: 200-002-3

SYNONYMS

AMINFORMAMIDINE HYDROCHLORIDE \* AMINOMETHANAMIDINE HYDROCHLORIDE \*  
CARBAMIDINE HYDROCHLORIDE \* GUANIDINE CHLORIDE \* GUANIDINE  
HYDROCHLORIDE \* GUANIDINIUM CHLORIDE \* GUANIDINIUM HYDROCHLORIDE \*  
IMINOUREA HYDROCHLORIDE \* USAF EK-749 \*

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

LABEL PRECAUTIONARY STATEMENTS

TOXIC (USA)  
HARMFUL (EU)  
HARMFUL IF SWALLOWED.  
IRRITATING TO EYES AND SKIN.  
TARGET ORGAN(S):  
BONE MARROW  
NERVES  
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
WATER AND SEEK MEDICAL ADVICE.  
WEAR SUITABLE PROTECTIVE CLOTHING.  
HYGROSCOPIC

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
CALL A PHYSICIAN.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER  
FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND  
SHOES. CALL A PHYSICIAN.  
IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER  
FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING  
THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA  
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- - - - -

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.  
EVACUATE AREA.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.  
SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -  
MECHANICAL EXHAUST REQUIRED.  
SAFETY SHOWER AND EYE BATH.  
WASH THOROUGHLY AFTER HANDLING.  
DO NOT BREATHE DUST.  
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.  
AVOID PROLONGED OR REPEATED EXPOSURE.  
NIOSH/MSHA-APPROVED RESPIRATOR.  
COMPATIBLE CHEMICAL-RESISTANT GLOVES.  
CHEMICAL SAFETY GOGGLES.  
STORE IN A COOL DRY PLACE.  
KEEP TIGHTLY CLOSED.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -  
PHYSICAL PROPERTIES  
MELTING POINT: 185 - 189 C  
SOLUBILITY:  
WATER -Z26130  
PH: 4,5 - 6,0  
SWISS POISON CLASS: 3

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -  
STABILITY  
STABLE.  
INCOMPATIBILITIES  
PROTECT FROM MOISTURE.  
STRONG OXIDIZING AGENTS  
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
CARBON MONOXIDE, CARBON DIOXIDE  
NITROGEN OXIDES  
HYDROGEN CHLORIDE GAS  
HAZARDOUS POLYMERIZATION  
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -  
ACUTE EFFECTS  
CAUSES SKIN IRRITATION.  
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.  
CAUSES EYE IRRITATION.  
MAY BE HARMFUL IF INHALED.  
MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER  
RESPIRATORY TRACT.  
HARMFUL IF SWALLOWED.  
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.  
MAY CAUSE NERVOUS SYSTEM DISTURBANCES.

CHRONIC EFFECTS  
TARGET ORGAN(S):  
BONE MARROW  
NERVES

RTECS #: MF430000  
GUANIDINE, MONOHYDROCHLORIDE

IRRITATION DATA  
SKN-RBT 500 MG/24H SEV NTIS\*\* AD-A166-306  
EYE-RBT 81400 UG MOD NTIS\*\* AD-A184-068

TOXICITY DATA  
ORL-RAT LD50:475 MG/KG NTIS\*\* AD-A165-747  
ORL-MUS LD50:571 MG/KG ATDAEI 12,598,1993  
IPR-MUS LD50:500 MG/KG NTIS\*\* AD277-689

TARGET ORGAN DATA  
BEHAVIORAL (ALTERED SLEEP TIME)  
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)  
BEHAVIORAL (EXCITEMENT)  
BEHAVIORAL (MUSCLE CONTRACTION OR SPASTICITY)  
BEHAVIORAL (IRRITABILITY)  
LUNGS, THORAX OR RESPIRATION (DYSPPNAE)  
GASTROINTESTINAL (HYPERMOTILITY, DIARRHEA)

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 - - - - -  
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.

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

EC INDEX NO: 607-148-00-0

HARMFUL

R 22

HARMFUL IF SWALLOWED.

R 36/38

IRRITATING TO EYES AND SKIN.

S 22

DO NOT BREATHE DUST.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

NOES 1983: HZD X3755; NIS 2; TNF 115; NOS 22; TNE 2097; TFE 589

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

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

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