ATTN: SAFETY DIRECTOR
UNIVERSITY OF WISCONSIN
WHITewater
ACCOUNTS PAYABLE
PO BOX 296
WHITewater WI 53190-0296

SIGMA CHEMICAL COMPANY
POST OFFICE BOX 14506
SAINT LOUIS, MISSOURI 63178, USA

EMERGENCY PHONE 1-314-771-5765
DATE 07/23/96
CUST#: 2-097-94804
PO#: UNG-71236

MATERIAL SAFETY DATA SHEET PAGE 1

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 15500
NAME: INSULIN FROM BOVINE PANCREAS

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #: 11070-73-8
EC NO: 234-291-2

SECTION 3. HAZARDS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS
CAUTION: AVOID CONTACT AND INHALATION.

SECTION 4. FIRST-AID MEASURES

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, 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
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

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, 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

CONTINUED ON NEXT PAGE
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MATERIAL SAFETY DATA SHEET PAGE 2

CATALOG #: I5500
NAME: INSULIN FROM BOVINE PANCREAS

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -
Wear appropriate NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -
APPEARANCE AND ODOR
SOLID.

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

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
SULFUR OXIDES

HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - -
ACUTE EFFECTS
MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
MAY CAUSE IRRITATION.
PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN
SENSITIVE INDIVIDUALS.
THE TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY
INVESTIGATED.

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.
CONTINUED ON NEXT PAGE
CATALOG #: 15500
NAME: INSULIN FROM BOVINE PANCREAS

SECTION 15. REGULATORY INFORMATION
DATA NOT AVAILABLE

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 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.

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MATERIAL WAS SHIPPED TO THIS ADDRESS:
UNIVERSITY OF WISCONSIN
WHITewater
CENTRAL RECEIV/ STORES
500 N FREMONT ST
WHITewater WI 53190