



**SIGMA-ALDRICH**

SIGMA CHEMICAL COMPANY  
POST OFFICE BOX 14508  
SAINT LOUIS, MISSOURI 63178, USA

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DATE 02/15/00  
CUST#: 0-495-04629  
PO#: 2152000

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

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

CATALOG #: M4038  
NAME: SIGMARKER WIDE RANGE  
(M.W. 6,500-205,000)

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

CAS #:NONE

RTECS DATA AND SYNONYMS SUPPLIED ARE FOR THE MOST ABUNDANT HAZARDOUS COMPONENT OF THIS PRODUCT.

SYNONYMS

ANTI-KREIN \* ANTILYSIN \* ANTILYSINE \* APROTININ \* BASIC PANCREATIC  
TRYPSIN INHIBITOR \* BAYER A-128 \* FOSTEN \* KALLIKREIN-TRYPSIN  
INACTIVATOR \* KIR RICHTER \* ONQUININ \* REPULSON \* RIKER 52G \* RP-9921  
\* PANCREATIC BASIC TRYPSIN INHIBITOR \* PANCREATIC TRYPSIN INHIBITOR \*  
PANCREATIC TRYPSIN INHIBITOR (KUNITZ) \* TRASYLOL \* TRAZININ \* TRYPSIN  
INHIBITOR \* TRYPSIN-KALLIKREIN INHIBITOR (KUNITZ) \* ZYMOFREN \*

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

LABEL PRECAUTIONARY STATEMENTS

HARMFUL  
MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.  
WARNING:  
MAY CAUSE ALLERGIC REACTION.  
AVOID PROLONGED OR REPEATED EXPOSURE.  
AVOID BREATHING DUST.  
KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION.  
WASH THOROUGHLY AFTER HANDLING.  
WEAR SUITABLE PROTECTIVE CLOTHING.

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

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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 - - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT  
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.  
MECHANICAL EXHAUST REQUIRED.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR  
SOLID.

PHYSICAL PROPERTIES  
SOLUBILITY:  
WATER -SOLUBLE

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 - - - - -

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M A T E R I A L   S A F E T Y   D A T A   S H E E T                      P A G E   3

CATALOG #: M4038  
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(M.W. 6,500-205,000)

**ACUTE EFFECTS**

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.  
MAY CAUSE ALLERGIC REACTION.  
EXPOSURE CAN CAUSE NAUSEA, VOMITING, DIARRHEA, MUSCLE PAINS, BLOOD PRESSURE CHANGES, AND BRONCHOSPASM.

RTECS DATA AND SYNONYMS SUPPLIED ARE FOR THE MOST ABUNDANT HAZARDOUS COMPONENT OF THIS PRODUCT.

RTECS #: YN5080000  
TRYPSIN INHIBITOR, PANCREATIC BASIC

**TOXICITY DATA**

IPR-RAT LD50:>40 ML/KG	OYYAA2 28,329,1984
SCU-RAT LD50:>40 ML/KG	OYYAA2 28,329,1984
IPR-MUS LD50:>50 ML/KG	OYYAA2 28,329,1984
SCU-MUS LD50:>50 ML/KG	OYYAA2 28,329,1984

**TARGET ORGAN DATA**

EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)  
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**

CAUTION: SUBSTANCE NOT YET FULLY TESTED.

HARMFUL  
R 42/43

MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

S 36

WEAR SUITABLE PROTECTIVE CLOTHING.

RTECS DATA AND SYNONYMS SUPPLIED ARE FOR THE MOST ABUNDANT HAZARDOUS COMPONENT OF THIS PRODUCT.

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REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK  
NOES 1983: HZD X9526; NIS 2; TNF 141; NOS 5; TNE 1132; TFE 938

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

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