



SIGMA-ALDRICH

SIGMA CHEMICAL COMPANY
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DATE 09/29/99
CUST#: 0-495-04629
PO#: CC/092999/MORSE

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 #: H3375
NAME: HEPES FREE ACID

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

CAS #: 7365-45-9
MF: C8H18N2O4S
EC NO: 230-907-9

SYNONYMS
HEPES * 4-(2-HYDROXYETHYL)-1-PIPERAZINEETHANESULFONIC ACID *

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

DATA NOT AVAILABLE

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 BREATHING BECOMES DIFFICULT,
CALL A PHYSICIAN.
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
AMOUNTS OF WATER.
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 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.

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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 2

CATALOG #: H3375
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SECTION 7. - - - - - H A N D L I N G A N D S T O R A G E - - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - E X P O S U R E C O N T R O L S / P E R S O N A L P R O T E C T I O N - - - - -

SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED.
AVOID INHALATION.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
NIOSH/MSHA-APPROVED RESPIRATOR.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.
WASH THOROUGHLY AFTER HANDLING.
HYGROSCOPIC

SECTION 9. - - - - - P H Y S I C A L A N D C H E M I C A L P R O P E R T I E S - - - - -

PHYSICAL PROPERTIES
MELTING POINT: 234 C
SOLUBILITY:
WATER -226130
PH: 5.0 - 6.5

SECTION 10. - - - - - S T A B I L I T Y A N D R E A C T I V I T Y - - - - -

STABILITY
STABLE.

INCOMPATIBILITIES
PROTECT FROM MOISTURE.
STRONG OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
SULFUR OXIDES

HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - T O X I C O L O G I C A L I N F O R M A T I O N - - - - -

ACUTE EFFECTS
MAY CAUSE SKIN IRRITATION.
MAY CAUSE EYE IRRITATION.
MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.

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MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: TL6809000
1-PIPERAZINEETHANESULFONIC ACID, 4-(2-HYDROXYETHYL)-

TOXICITY DATA
ORL-QAL LD50:>316 MG/KG
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION. EESADV 6,149,1982

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 -----
REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
NOES 1983: HZD X9468; NIS 2; TNF 239; NOS 7; TNE 3025; TFE 2233
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

SECTION 16. ----- OTHER 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 4

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WI 53190

