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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 27983

NAME: 4-Aminopyridine

SYNONYMS:

24 HOUR EMERGENCY

TELEPHONE:

(800) 535-5053(USA)

352-323-3500 (INTERNATIONAL)

TO REQUEST AN MSDS: (800) 869-9290

CUSTOMER SERVICE:

(630) 766-2112

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

ACUTE TOXICITY, ORAL (CATEGORY 2), H300 SKIN IRRITATION (CATEGORY 2), H315 EYE IRRITATION (CATEGORY 2A), H319 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3), RESPIRATORY SYSTEM, H335

ACUTE AQUATIC TOXICITY (CATEGORY 2), H401

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM

SIGNAL WORD DANGER

HAZARD STATEMENT(S)

H300 FATAL IF SWALLOWED. H315 CAUSES SKIN IRRITATION.

H319 CAUSES SERIOUS EYE IRRITATION. H335 MAY CAUSE RESPIRATORY IRRITATION.

H401 TOXIC TO AQUATIC LIFE.

PRECAUTIONARY STATEMENT(S)

P261 AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/

SPRAY.

P264 WASH SKIN THOROUGHLY AFTER HANDLING. P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS

PRODUCT.

P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.

P273 AVOID RELEASE TO THE ENVIRONMENT.
P280 WEAR EYE PROTECTION/ FACE PROTECTION.

P280 WEAR PROTECTIVE GLOVES.

P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR

DOCTOR/PHYSICIAN. RINSE MOUTH.

P302 + P352 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.

P304 + P340 + P312 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. CALL

A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL

UNWELL.

P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL

MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND

EASY TO DO. CONTINUE RINSING.

P332 + P313 IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/

ATTENTION.

P337 + P313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/

ATTENTION.

P362 TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE

REUSE.

P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER

TIGHTLY CLOSED.

P405 STORE LOCKED UP.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

WASTE DISPOSAL PLANT.

HAZARDS NOT NONE

OTHERWISE

CLASSIFIED (HNOC) OR NOT COVERED BY GHS

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_5H_6N_2$

MW: 94.11

CAS-NO. 504-24-5

PURITY: $\geq 99\%$ (HPLC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
4-PYRIDYLAMINE		
	ACUTE TOX. 2; SKIN IRRIT. 2;	<= 100%
	EYE IRRIT. 2A; STOT SE 3;	
	AQUATIC ACUTE 2; H300,	
	H315, H319, H335, H401	

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA

SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT

OF DANGEROUS AREA.

IF INHALED IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF

NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

CONSULT A PHYSICIAN.

IN CASE OF SKIN

CONTACT

WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE

VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A

PHYSICIAN.

IN CASE OF EYE

CONTACT

RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT

LEAST 15 MINUTES AND CONSULT A PHYSICIAN.

IF SWALLOWED NEVER GIVE ANYTHING BY MOUTH TO AN

UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER.

CONSULT A PHYSICIAN.

MOST IMPORTANT SYMPTOMS AND THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

SECTION 2.2) AND/OR IN SECTION 11

EFFECTS, BOTH ACUTE AND DELAYED

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY

EXTINGUISHING MEDIA CHEMICAL OR CARBON DIOXIDE.

SPECIAL HAZARDS CARBON OXIDES, NITROGEN OXIDES (NOX)

ARISING FROM THE SUBSTANCE OR MIXTURE

PROCEDURES

ADVICE FOR WEAR SELF-CONTAINED BREATHING APPARATUS FOR

FIREFIGHTERS FIREFIGHTING IF NECESSARY.

FURTHER INFORMATION NO DATA AVAILABLE

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONALWEAR RESPIRATORY PROTECTION. AVOID DUSTPRECAUTIONS,FORMATION. AVOID BREATHING VAPOURS, MIST ORPROTECTIVEGAS. ENSURE ADEQUATE VENTILATION. EVACUATEEQUIPMENT ANDPERSONNEL TO SAFE AREAS. AVOID BREATHING DUST.EMERGENCYFOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE **PRECAUTIONS** TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

METHODS ANDPICK UP AND ARRANGE DISPOSAL WITHOUTMATERIALS FORCREATING DUST. SWEEP UP AND SHOVEL. KEEP INCONTAINMENT ANDSUITABLE, CLOSED CONTAINERS FOR DISPOSAL.CLEANING UPCLEANING UP

REFERENCE TO OTHER FOR DISPOSAL SEE SECTION 13. **SECTIONS**

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE

HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS.FURTHER PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE

ADDITIONAL PROCESSING OCCURS.

PROVIDE APPROPRIATE EXHAUST VENTILATION AT

PLACES WHERE DUST IS FORMED. FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND

WELL-VENTILATED PLACE.

STORAGE CLASS (TRGS 510): NON-COMBUSTIBLE,

ACUTE TOXIC CAT. 1 AND 2 / VERY TOXIC HAZARDOUS

MATERIALS

SPECIFIC END USE(S)

APART FROM THE USES MENTIONED IN SECTION 1.2

NO OTHER SPECIFIC USES ARE STIPULATED

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS CONTAINS NO SUBSTANCES WITH OCCUPATIONAL

EXPOSURE LIMIT VALUES.

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY

AFTER HANDLING THE PRODUCT.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION

FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

SKIN PROTECTION

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE"S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

FULL CONTACT
MATERIAL: NITRILE RUBBER
MINIMUM LAYER THICKNESS: 0.11 MM
BREAK THROUGH TIME: 480 MIN
MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

SPLASH CONTACT
MATERIAL: NITRILE RUBBER
MINIMUM LAYER THICKNESS: 0.11 MM
BREAK THROUGH TIME: 480 MIN
MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

BODY PROTECTION

COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

RESPIRATORY PROTECTION

WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

CONTROL OF ENVIRONMENTAL EXPOSURE PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.
DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE White to slightly yellow crystals

ODOUR NO DATA AVAILABLE
ODOUR THRESHOLD NO DATA AVAILABLE
PH NO DATA AVAILABLE

MELTING 157 - 162 °C

POINT/FREEZING POINT INITIAL BOILING POINT AND BOILING RANGE

FLASH POINT

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, NO DATA AVAILABLE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE NO DATA AVAILABLE VAPOUR DENSITY NO DATA AVAILABLE

RELATIVE DENSITY

WATER SOLUBILITY NO DATA AVAILABLE

PARTITION COEFFICIENT: LOG POW: -0.76

N- OCTANOL/WATER

AUTO-IGNITION NO DATA AVAILABLE

TEMPERATURE

DECOMPOSITION NO DATA AVAILABLE

TEMPERATURE

VISCOSITY NO DATA AVAILABLE EXPLOSIVE PROPERTIES NO DATA AVAILABLE OXIDIZING PROPERTIES NO DATA AVAILABLE

OTHER SAFETY INFORMATION

NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY NO DATA AVAILABLE

CHEMICAL STABILITY STABLE UNDER RECOMMENDED STORAGE

CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS NO DATA AVAILABLE

CONDITIONS TO AVOID NO DATA AVAILABLE

INCOMPATIBLE STRONG OXIDIZING AGENTS, STRONG ACIDS, ACID

MATERIALS CHLORIDES, ACID ANHYDRIDES

HAZARDOUS OTHER DECOMPOSITION PRODUCTS - NO DATA

DECOMPOSITION AVAILABLE

PRODUCTS IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - RAT - 21 MG/KG

DERMAL: NO DATA AVAILABLE

SKIN NO DATA AVAILABLE

CORROSION/IRRITATION

SERIOUS EYE NO DATA AVAILABLE

DAMAGE/EYE IRRITATION

RESPIRATORY OR SKIN

SENSITISATION

NO DATA AVAILABLE

GERM CELL NO DATA AVAILABLE

MUTAGENICITY

CARCINOGENICITY
IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS

IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

HUMAN CARCINOGEN BY IARC.

ACGIH: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY ACGIH.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED

CARCINOGEN BY NTP.

OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY OSHA.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN INHALATION - MAY CAUSE RESPIRATORY

TOXICITY - SINGLE IRRITATION.

EXPOSURE

SPECIFIC TARGET ORGAN

TOXICITY - REPEATED

EXPOSURE

NO DATA AVAILABLE

ASPIRATION HAZARD NO DATA AVAILABLE

ADDITIONAL RTECS: US1750000

INFORMATION EFFECTS DUE TO INGESTION MAY INCLUDE:,

DIZZINESS, UNCONSCIOUSNESS, HEADACHE, COMA STOMACH - IRREGULARITIES - BASED ON HUMAN

EVIDENCE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH LC50 - LEPOMIS MACROCHIRUS (BLUEGILL) - 2.8

MG/L - 96.0 H

TOXICITY TO DAPHNIA AND

EC50 - DAPHNIA MAGNA (WATER FLEA) - 3.2 MG/L - 48

OTHER AQUATIC

INVERTEBRATES

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY RESULT: - READILY BIODEGRADABLE.

Η

BIOACCUMULATIVE

POTENTIAL

NO DATA AVAILABLE

MOBILITY IN SOIL NO DATA AVAILABLE

RESULTS OF PBT AND

PBT/VPVB ASSESSMENT NOT AVAILABLE AS

VPVB ASSESSMENT CHEMICAL SAFETY ASSESSMENT NOT

REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS TOXIC TO AQUATIC LIFE.

AN ENVIRONMENTAL HAZARD CANNOT BE

EXCLUDED IN THE EVENT OF UNPROFESSIONAL

HANDLING OR DISPOSAL.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS

TO A LICENSED DISPOSAL COMPANY. 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.

CONTAMINATED PACKAGING

DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: AMINOPYRIDINES

UN NUMBER: 2671 CLASS: 6.1 PACKING GROUP: II

REPORTABLE QUANTITY 1000 LBS

(RQ):

POISON INHALATION NO

HAZARD:

IMDG

PROPER SHIPPING NAME: AMINOPYRIDINES (O-, M-, P-)

UN NUMBER: 2671 CLASS: 6.1 PACKING GROUP: II

EMS-NO: F-A, S-A

IATA

PROPER SHIPPING NAME: AMINOPYRIDINES

UN NUMBER: 2671 CLASS: 6.1 PACKING GROUP: II

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS THE FOLLOWING COMPONENTS ARE SUBJECT TO

REPORTING LEVELS ESTABLISHED BY SARA TITLE III,

SECTION 302:

CAS-NO. REVISION DATE

4-Aminopyridine 504-24-5 11/3/2008

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL

COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

SARA 311/312 HAZARDS ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

4-Aminopyridine 504-24-5 11/3/2008

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

4-Aminopyridine 504-24-5 11/3/2008

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS- REVISION DATE

NO.

4-Aminopyridine 504-24-5 11/3/2008

CALIFORNIA PROP. 65

COMPONENTS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER,

BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS

SECTION 16. OTHER INFORMATION

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

ACUTE TOX. ACUTE TOXICITY

AQUATIC ACUTE ACUTE AQUATIC TOXICITY

EYE IRRIT. EYE IRRITATION

H300 FATAL IF SWALLOWED. H315 CAUSES SKIN IRRITATION.

H319 CAUSES SERIOUS EYE IRRITATION. H335 MAY CAUSE RESPIRATORY IRRITATION.

H401 TOXIC TO AQUATIC LIFE.

SKIN IRRIT. SKIN IRRITATION

HMIS RATING

HEALTH HAZARD: 4 CHRONIC HEALTH *

HAZARD:

FLAMMABILITY: 0 PHYSICAL HAZARD 0

NFPA RATING

HEALTH HAZARD: 3
FIRE HAZARD: 0
REACTIVITY HAZARD: 0

MSDS LEGEND

MW: MOLECULAR WEIGHT MF: MOLECULAR FORMULA

VOC: VOLATILE ORGANIC COMPOUNDS

ACGIH: AMERICAN CONFERENCE OF GOVERNMENENTAL INDUSTRIAL

HYGINISTS

CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV: THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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