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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 42202

NAME: N,N'-Bis(3-aminopropyl)ethylenediamine

SYNONYMS: 1,2-Bis(3-aminopropylamino)ethane

3,3-Ethylenediiminodipropylamine

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 4), H302 ACUTE TOXICITY, DERMAL (CATEGORY 2), H310 SKIN CORROSION (CATEGORY 1B), H314 SERIOUS EYE DAMAGE (CATEGORY 1), H318 SKIN SENSITISATION (CATEGORY 1), H317 SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 3), H402

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)

H302 HARMFUL IF SWALLOWED. H310 FATAL IN CONTACT WITH SKIN.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H402

P

H402	HARMFUL TO AQUATIC LIFE.	
PRECAUTIONARY STATEMENT(S)		
P261	AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/	
	SPRAY.	
P262	DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.	
P264	WASH SKIN THOROUGHLY AFTER HANDLING.	
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS	
	PRODUCT.	
P272	CONTAMINATED WORK CLOTHING SHOULD NOT BE	
	ALLOWED OUT OF THE WORKPLACE.	
P273	AVOID RELEASE TO THE ENVIRONMENT.	
P280	WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE	
	PROTECTION/ FACE PROTECTION.	
P301 + P312 + P330	IF SWALLOWED: CALL A POISON CENTER/DOCTOR IF YOU	
	FEEL UNWELL. RINSE MOUTH.	
P301 + P330 + P331	IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE	
	VOMITING.	
P302 + P350 + P310	IF ON SKIN: GENTLY WASH WITH PLENTY OF SOAP AND	
	WATER. IMMEDIATELY CALL A POISON CENTER OR	
	DOCTOR/ PHYSICIAN.	
P303 + P361 + P353	IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY	
	ALL CONTAMINATED CLOTHING. RINSE SKIN WITH	
	WATER/ SHOWER.	
P304 + P340 + P310	IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT	
	REST IN A POSITION COMFORTABLE FOR BREATHING.	
	IMMEDIATELY CALL A POISON CENTER OR DOCTOR/	
	PHYSICIAN.	
P305 + P351 + P338 +	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR	
P310	SEVERAL MINUTES. REMOVE CONTACT LENSES, IF	
	PRESENT AND EASY TO DO. CONTINUE RINSING.	
	IMMEDIATELY CALL A POISON CENTER/DOCTOR.	

IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL

ADVICE/ ATTENTION.

P362 TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE

REUSE.

P405 STORE LOCKED UP.

P333 + P313

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

WASTE DISPOSAL PLANT.

HAZARDS NOT OTHERWISE

CLASSIFIED (HNOC) OR NOT COVERED

BY GHS

NONE

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_8H_{22}N_4$

MW: 174.29

CAS-NO. 10563-26-5

PURITY: \geq 98% (GC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION	
N,N'-Bis(3-aminopropyl)ethylenediamine			
	ACUTE TOX. 4; ACUTE TOX. 2; SKIN CORR. 1B; EYE DAM. 1; SKIN SENS. 1; AQUATIC ACUTE 3; H302, H310, H314, H318, H317, H402	<= 100 %	

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

TAKE OFF CONTAMINATED CLOTHING AND SHOES CONTACT IMMEDIATELY. 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.CONTINUE RINSING EYES DURING

TRANSPORT TO HOSPITAL.

IF SWALLOWED

DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.

MOST IMPORTANT SYMPTOMS AND

EFFECTS, BOTH ACUTE AND DELAYED THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

SECTION 2.2) AND/OR IN SECTION 11

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

ARISING FROM THE

SUBSTANCE OR MIXTURE

CARBON OXIDES, NITROGEN OXIDES (NOX)

ADVICE FOR WEAR SELF-CONTAINED BREATHING APPARATUS FOR

FIREFIGHTERS FIREFIGHTING IF NECESSARY.

FURTHER INFORMATION NO DATA AVAILABLE

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL
PRECAUTIONS,
PROTECTIVE
EQUIPMENT AND
EMERGENCY
PROCEDURES

WEAR RESPIRATORY PROTECTION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE

VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS. FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PRECAUTIONS

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

AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP SOAK UP WITH INERT ABSORBENT MATERIAL AND DISPOSE OF AS HAZARDOUS WASTE. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

REFERENCE TO OTHER

SECTIONS

FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE

HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID

INHALATION OF VAPOUR OR MIST. FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT

UPRIGHT TO PREVENT LEAKAGE.

Store at RT

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 AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH

ENGINEERING HANDS BEFORE BREAKS AND IMMEDIATELY AFTER

CONTROLS HANDLING THE PRODUCT.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE **PROTECTION** TIGHTLY FITTING SAFETY GOGGLES. FACESHIELD (8-INCH MINIMUM). USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT

STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

SKIN

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR **PROTECTION** 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.

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 FULLFACE 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 PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO

SO. DO NOT LET PRODUCT ENTER DRAINS.

EXPOSURE DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless to almost clear liquid

ODOUR NO DATA AVAILABLE ODOUR THRESHOLD NO DATA AVAILABLE ΡН NO DATA AVAILABLE

MELTING

POINT/FREEZING POINT

INITIAL BOILING POINT 165 °C/10 mmHg

AND BOILING RANGE

FLASH POINT 142 °C

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

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

NO DATA AVAILABLE VAPOUR PRESSURE

VAPOUR DENSITY NO DATA AVAILABLE

RELATIVE DENSITY 0.95

WATER SOLUBILITY NO DATA AVAILABLE PARTITION COEFFICIENT: NO DATA AVAILABLE

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

MATERIALS

NO DATA AVAILABLE

HAZARDOUS DECOMPOSITION PRODUCTS FORMED

DECOMPOSITION UNDER FIRE CONDITIONS. - CARBON OXIDES,

PRODUCTS NITROGEN OXIDES (NOX)

OTHER DECOMPOSITION PRODUCTS - NO DATA

AVAILABLE

IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - RAT - MALE AND FEMALE - 1,140 MG/KG

REMARKS: (ECHA)

INHALATION: CORROSIVE TO RESPIRATORY SYSTEM.

LD50 DERMAL - RABBIT - MALE AND FEMALE - 190

MG/KG

REMARKS: (ECHA)

NO DATA AVAILABLE

SKIN SKIN RABBIT

RESULT: CAUSES BURNS. **CORROSION/IRRITATION**

(OECD TEST GUIDELINE 404)

SERIOUS EYE CAUSES SERIOUS EYE DAMAGE.

DAMAGE/EYE IRRITATION EYES RABBIT

RESULT: CAUSES SERIOUS EYE DAMAGE.

(OECD TEST GUIDELINE 405)

RESPIRATORY OR SKIN

BUEHLER TEST - GUINEA PIG SENSITISATION RESULT: POSITIVE

(OECD TEST GUIDELINE 406)

GERM CELL AMES TEST

MUTAGENICITY ESCHERICHIA COLI/SALMONELLA TYPHIMURIUM

RESULT: NEGATIVE

IN VITRO MAMMALIAN CELL GENE MUTATION TEST

RESULT: NEGATIVE

MUTAGENICITY (MAMMAL CELL TEST):

CHROMOSOME ABERRATION.

RESULT: NEGATIVE

CARCINOGENICITY

NO COMPONENT OF THIS PRODUCT PRESENT AT IARC:

LEVELS GREATER THAN OR EQUAL TO 0.1% IS

IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

HUMAN CARCINOGEN BY IARC.

NO COMPONENT OF THIS PRODUCT PRESENT AT NTP:

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

CARCINOGEN BY NTP.

NO COMPONENT OF THIS PRODUCT PRESENT AT OSHA:

> LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - SINGLE

EXPOSURE

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - REPEATED

EXPOSURE

NO DATA AVAILABLE

ASPIRATION HAZARD NO DATA AVAILABLE

ADDITIONAL INFORMATION

REPEATED DOSE TOXICITY - RAT - MALE AND FEMALE - ORAL - 53 D - NO OBSERVED ADVERSE

EFFECT LEVEL - 30 MG/KG

RTECS: TX8032950

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE

NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH STATIC TEST LC50 - LEUCISCUS IDUS (GOLDEN ORFE)

- 220 - 460 MG/L - 96 H

(DIN 38412 T15)

TOXICITY TO DAPHNIA AND

STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 42.54 MG/L - 48 H

OTHER AQUATIC INVERTEBRATES

TOXICITY TO ALGAE

STATIC TEST EC50 - DESMODESMUS SUBSPICATUS

(GREEN ALGAE) - > 100 MG/L - 72 H

TOXICITY TO BACTERIA STATIC TEST EC50 - ACTIVATED SLUDGE - 720 MG/L -

3 H

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY AEROBIC - EXPOSURE TIME 28 D

RESULT: 70 % - READILY BIODEGRADABLE.

(OECD TEST GUIDELINE 301B)

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 AN ENVIRONMENTAL HAZARD CANNOT BE

EXCLUDED IN THE EVENT OF UNPROFESSIONAL

HANDLING OR DISPOSAL. HARMFUL TO AQUATIC LIFE

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.

CONTAMINATED PACKAGING

DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: CORROSIVE LIQUIDS, TOXIC, N.O.S. (N,N-Bis(3-

aminopropyl)ethylenediamine)

UN NUMBER: 2922 CLASS: 8 (6.1) PACKING GROUP: II

REPORTABLE QUANTITY

(RO):

POISON INHALATION NO

HAZARD:

IMDG

PROPER SHIPPING NAME: CORROSIVE LIQUIDS, TOXIC, N.O.S. (N,N-Bis(3-

aminopropyl)ethylenediamine)

UN NUMBER: 2922 CLASS: 8 (6.1) PACKING GROUP: II EMS-NO: F-A, S-B

IATA

PROPER SHIPPING NAME: CORROSIVE LIQUIDS, TOXIC, N.O.S. (N,N-Bis(3-

aminopropyl)ethylenediamine)

UN NUMBER: 2922 CLASS: 8 (6.1) PACKING GROUP: II

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO

THE REPORTING REQUIREMENTS OF SARA TITLE III,

SECTION 302.

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL

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

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

N,*N*'-Bis(3-

aminopropyl)ethylenediamine

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

N,*N*'-Bis(3-

aminopropyl)ethylenediamine

SECTION 16. OTHER INFORMATION

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

H302 HARMFUL IF SWALLOWED. H310 FATAL IN CONTACT WITH SKIN.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H402 HARMFUL TO AQUATIC LIFE.

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)

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