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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	03999
NAME:	Diethanolamine
SYNONYMS:	Bis(2-hydroxyethyl)amine 2,2'-Iminodiethanol
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
SKIN IRRITATION (CATEGORY 2), H315
SERIOUS EYE DAMAGE (CATEGORY 1), H318

CARCINOGENICITY (CATEGORY 2), H351
 REPRODUCTIVE TOXICITY (CATEGORY 2), H361
 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE, ORAL (CATEGORY 2),
 KIDNEY, LIVER, BLOOD, H373
 SHORT-TERM (ACUTE) AQUATIC HAZARD (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)

H302	HARMFUL IF SWALLOWED.
H315	CAUSES SKIN IRRITATION.
H318	CAUSES SERIOUS EYE DAMAGE.
H351	SUSPECTED OF CAUSING CANCER.
H361	SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
H373	MAY CAUSE DAMAGE TO ORGANS (KIDNEY, LIVER, BLOOD) THROUGH PROLONGED OR REPEATED EXPOSURE IF SWALLOWED.
H401	TOXIC TO AQUATIC LIFE.

PRECAUTIONARY STATEMENT(S)

P201	OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
P202	DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.
P260	DO NOT BREATHE MIST OR VAPORS.
P264	WASH SKIN THOROUGHLY AFTER HANDLING.
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.
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.
P302 + P352	IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
P305 + P351 + P338 + P310	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER/DOCTOR.
P308 + P313	IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ ATTENTION.
P332 + P313	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ ATTENTION.
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.
P405	STORE LOCKED UP.

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: C₄H₁₁NO₂

MW: 105.10

CAS-NO. 111-42-2

PURITY: ≥ 99%

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Diethanolamine		
	ACUTE TOX. 4; SKIN IRRIT. 2; EYE DAM. 1; CARC. 2; REPR. 2; STOT RE 2; AQUATIC ACUTE 2; H302, H315, H318, H351, H361, H373, H401	≤ 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 CONTACT TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT	RINSE OUT WITH PLENTY OF WATER. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.
IF SWALLOWED	IMMEDIATELY MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST). 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 EXTINGUISHING MEDIA	SUITABLE EXTINGUISHING MEDIA WATER FOAM CARBON DIOXIDE (CO ₂) DRY POWDER
	UNSUITABLE EXTINGUISHING MEDIA FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF EXTINGUISHING AGENTS ARE GIVEN.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	CARBON OXIDES NITROGEN OXIDES (NO _x) COMBUSTIBLE. VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD ALONG FLOORS. FORMS EXPLOSIVE MIXTURES WITH AIR ON INTENSE HEATING. DEVELOPMENT OF HAZARDOUS COMBUSTION GASES OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.
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ADVICE FOR FIREFIGHTERS	STAY IN DANGER AREA ONLY WITH SELF-CONTAINED BREATHING APPARATUS. PREVENT SKIN CONTACT BY KEEPING A SAFE DISTANCE OR BY WEARING SUITABLE PROTECTIVE CLOTHING.
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FURTHER INFORMATION	SUPPRESS (KNOCK DOWN) GASES/VAPORS/MISTS WITH A WATER SPRAY JET. PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR THE GROUND WATER SYSTEM.
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SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	ADVICE FOR NON-EMERGENCY PERSONNEL: DO NOT BREATHE VAPORS, AEROSOLS. AVOID SUBSTANCE CONTACT. ENSURE ADEQUATE VENTILATION. EVACUATE THE DANGER AREA, OBSERVE EMERGENCY PROCEDURES, CONSULT AN EXPERT. FOR PERSONAL PROTECTION SEE SECTION 8.
ENVIRONMENTAL PRECAUTIONS	DO NOT LET PRODUCT ENTER DRAINS.
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	WORK UNDER HOOD. DO NOT INHALE SUBSTANCE/MIXTURE. AVOID GENERATION OF VAPOURS/AEROSOLS. IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE. 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. AIR SENSITIVE. 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

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
Diethanolamine	111-42-2	TWA	1 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS DANGER OF CUTANEOUS ABSORPTION		
		TWA	3 PPM 15 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		PEL	0.46 PPM 2 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS (TITLE 8, ARTICLE 107)
		SKIN		

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS

IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE.

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 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: LATEX GLOVES

MINIMUM LAYER THICKNESS: 0.6 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED:LAPREN (KCL 706, SIZE M)

SPLASH CONTACT

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.11 MM

BREAK THROUGH TIME: 30 MIN

MATERIAL TESTED:KCL 741 DERMATRIL L

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 RESPIRATOR WITH MULTIPURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) 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

DO NOT LET PRODUCT ENTER DRAINS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear colorless liquid
ODOUR	AMMONIACAL
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	11.0 - 12 AT 105 G/L AT 25 °C
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	UPPER EXPLOSION LIMIT: 10.6 %(V) LOWER EXPLOSION LIMIT: 1.6 %(V)
VAPOUR PRESSURE	1 HPA (1 MMHG) AT 108 °C
VAPOUR DENSITY	3.63 - (AIR = 1.0)
RELATIVE DENSITY	
WATER SOLUBILITY	105 G/L AT 20 °C - COMPLETELY SOLUBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	LOG POW: -2.46 AT 25 °C - OECD TEST GUIDELINE 107 - BIOACCUMULATION IS NOT EXPECTED.
AUTO-IGNITION TEMPERATURE	355 °C AT 1,013 HPA
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

OTHER SAFETY INFORMATION

DISSOCIATION CONSTANT	8.99 AT 25 °C
RELATIVE VAPOUR DENSITY	3.63 - (AIR = 1.0)

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	FORMS EXPLOSIVE MIXTURES WITH AIR ON INTENSE HEATING. A RANGE FROM APPROX. 15 KELVIN BELOW THE FLASH POINT IS TO BE RATED AS CRITICAL.
CHEMICAL STABILITY	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS (ROOM TEMPERATURE) . ABSORBS CARBON DIOXIDE (CO ₂) FROM AIR.

POSSIBILITY OF HAZARDOUS REACTIONS	NO DATA AVAILABLE
CONDITIONS TO AVOID	STRONG HEATING.
INCOMPATIBLE MATERIALS	BRONZE, COPPER, COPPER ALLOYS, BRASS, ZINC, ZINC ALLOYS, STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	LD50 ORAL - RAT - MALE AND FEMALE - 1,600 MG/KG SYMPTOMS: IRRITATIONS OF MUCOUS MEMBRANES IN THE MOUTH, PHARYNX, OESOPHAGUS AND GASTROINTESTINAL TRACT. INHALATION: NO DATA AVAILABLE DERMAL: NO DATA AVAILABLE NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	SKIN RABBIT RESULT: IRRITATING REMARKS: (REGULATION (EC) NO 1272/2008, ANNEX VI)
SERIOUS EYE DAMAGE/EYE IRRITATION	EYES RABBIT RESULT: CAUSES SERIOUS EYE DAMAGE. REMARKS: (REGULATION (EC) NO 1272/2008, ANNEX VI)
RESPIRATORY OR SKIN SENSITISATION	MAXIMIZATION TEST - GUINEA PIG RESULT: NEGATIVE

**GERM CELL
MUTAGENICITY**

TEST TYPE: AMES TEST
TEST SYSTEM: ESCHERICHIA COLI/SALMONELLA
TYPHIMURIUM
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 471
RESULT: NEGATIVE

TEST TYPE: MUTAGENICITY (MAMMAL CELL TEST):
CHROMOSOME ABERRATION.
TEST SYSTEM: RAT HEPATOCYTES
METABOLIC ACTIVATION: WITHOUT METABOLIC
ACTIVATION
METHOD: OECD TEST GUIDELINE 473
RESULT: NEGATIVE

TEST TYPE: SISTER CHROMATID EXCHANGE ASSAY
TEST SYSTEM: CHINESE HAMSTER OVARY CELLS
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 479
RESULT: NEGATIVE

TEST TYPE: MUTAGENICITY (MAMMAL CELL TEST):
CHROMOSOME ABERRATION.
TEST SYSTEM: CHINESE HAMSTER OVARY CELLS
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 473
RESULT: NEGATIVE

TEST TYPE: IN VITRO MAMMALIAN CELL GENE
MUTATION TEST
TEST SYSTEM: MOUSE LYMPHOMA TEST
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 476
RESULT: NEGATIVE

TEST TYPE: IN VIVO MICRONUCLEUS TEST
SPECIES: MOUSE
APPLICATION ROUTE: DERMAL
METHOD: OECD TEST GUIDELINE 474
RESULT: NEGATIVE

CARCINOGENICITY

IARC:

2B - GROUP 2B: POSSIBLY CARCINOGENIC TO
HUMANS (DIETHANOLAMINE)

NTP:

NO INGREDIENT 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 ON OSHA S LIST OF REGULATED CARCINOGENS.
REPRODUCTIVE TOXICITY	SUSPECTED OF DAMAGING THE UNBORN CHILD. SUSPECTED OF DAMAGING FERTILITY.
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	INGESTION - MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. - KIDNEY, LIVER, BLOOD REMARKS: CLASSIFIED ACCORDING TO REGULATION (EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2)
ASPIRATION HAZARD	NO DATA AVAILABLE
ADDITIONAL INFORMATION	
REPEATED DOSE TOXICITY	RAT - FEMALE - ORAL - 91 DAYS - LOAEL (LOWEST OBSERVED ADVERSE EFFECT LEVEL) - 14 MG/KG RAT - MALE AND FEMALE - DERMAL - 91 DAYS - LOAEL (LOWEST OBSERVED ADVERSE EFFECT LEVEL) - 32 MG/KG

RTECS: KL2975000

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SYSTEMIC EFFECTS:
IRRITATION AND CORROSION
COUGH
NAUSEA
HEADACHE
DIZZINESS
RISK OF SERIOUS DAMAGE TO EYES.

POSSIBLE DAMAGES:
KIDNEY
LIVER

OTHER DANGEROUS PROPERTIES CAN NOT BE EXCLUDED.

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

LIVER - IRREGULARITIES - BASED ON HUMAN EVIDENCE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH	STATIC TEST LC50 - ONCORHYNCHUS MYKISS (RAINBOW TROUT) - 460 MG/L - 96 H REMARKS: (ECHA)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	STATIC TEST EC50 - CERIODAPHNIA DUBIA (WATER FLEA) - 30.1 MG/L - 48 H REMARKS: (ECHA)
TOXICITY TO ALGAE	STATIC TEST ERC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE) - 9.5 MG/L - 96 H (US-EPA)
TOXICITY TO BACTERIA	STATIC TEST EC10 - ACTIVATED SLUDGE - > 1,000 MG/L - 30 MIN
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES(CHRONIC TOXICITY)	SEMI-STATIC TEST EC10 - DAPHNIA MAGNA (WATER FLEA) - 1.05 MG/L - 21 D REMARKS: (ECHA)

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY	AEROBIC - EXPOSURE TIME 28 D RESULT: 93 % - READILY BIODEGRADABLE.
BIOCHEMICAL OXYGEN DEMAND (BOD)	885 MG/G REMARKS: (EXTERNAL MSDS)
CHEMICAL OXYGEN DEMAND (COD)	1,352 MG/G REMARKS: (EXTERNAL MSDS)

BIOACCUMULATIVE POTENTIAL

NO DATA AVAILABLE

MOBILITY IN SOIL

NO DATA AVAILABLE

RESULTS OF PBT AND VPVB ASSESSMENT

PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS**ADDITIONAL ECOLOGICAL INFORMATION**

BIOLOGICAL EFFECTS:
HARMFUL EFFECT DUE TO PH SHIFT.

WHEN DISCHARGED PROPERLY, NO IMPAIRMENTS IN THE FUNCTION OF ADAPTED BIOLOGICAL WASTEWATER TREATMENT PLANTS ARE TO BE EXPECTED.

DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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:	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (Diethanolamine)
UN NUMBER:	3077
CLASS:	9
PACKING GROUP:	III
REPORTABLE QUANTITY (RQ):	100 LBS
POISON INHALATION HAZARD:	NO
IMDG	NOT DANGEROUS GOODS
IATA	NOT DANGEROUS GOODS
FURTHER INFORMATION	
NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.	

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.	
SARA 313 COMPONENTS	THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:	
Diethanolamine	CAS-NO. 111-42-2	REVISION DATE 03/01/2007
SARA 311/312 HAZARDS	ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD	

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Diethanolamine	111-42-2	03/01/2007

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Diethanolamine	111-42-2	03/01/2007

CALIFORNIA PROP. 65 COMPONENTS

WARNING! THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

	CAS-NO.	REVISION DATE
Diethanolamine	111-42-2	07/20/2012

SECTION 16. OTHER INFORMATION

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

H302	HARMFUL IF SWALLOWED.
H315	CAUSES SKIN IRRITATION.
H318	CAUSES SERIOUS EYE DAMAGE.
H351	SUSPECTED OF CAUSING CANCER.
H361	SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
H373	MAY CAUSE DAMAGE TO ORGANS (KIDNEY, LIVER, AND BLOOD) THROUGH PROLONGED OR REPEATED EXPOSURE IF SWALLOWED.
H401	TOXIC TO AQUATIC LIFE.

MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL 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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VERSION: 3.2

REVISION DATE: 07/10/2023