MATERIAL SAFETY DATA SHEET

MANUFACTURER

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PRODUCT IDENTIFICATION

PRODUCT: CleanMount™ Aqueous Mounting Solution

CATALOG #: 10-0034, 10-0035

HAZARDOUS COMPONENT INFORMATION

TO THE BEST OF OUR KNOWLEDGE, THE ABOVE PRODUCT CONTAINS NO HAZARDOUS COMPONENTS. BECAUSE SODIUM AZIDE IS THE ONLY TOXIC CHEMICAL PRESENT AND IT IS AT A CONCENTRATION OF 0.1%, THE MATERIAL SAFETY DATA SHEET IS ATTACHED.

THE PROVIDED INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT CLAIM TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. TRAINED PERSONNEL AND GOOD LABORATORY PRACTICES SHOULD COMPLEMENT USE OF THIS PRODUCT. GENEMED BIOTECHNOLOGIES, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.

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MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL IDENTIFICATION

NAME: SODIUM AZIDE

DATE: 1/25/94

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

CAS # 26628-22-8

MF: N3NA1

SYNONYMS

AZIDE * AZIUM * AZOTURE DE SODIUM (FRENCH) * KAZOE * NATRIUMAZID (GERMAN)*NATRIUMMAZIDE (DUTCH) * NCI-CO6462 * NSC 3072 * RCRA WASTE NUMBER P105 * SMITE * SODIUM AZIDE (ACGIH, DOT, OSHA) * SODIUM, AZOTURE DE (FRENCH) * SODIUM, AZOTURO DI (ITALIAN) * U-3886 * UN 1687 (DOT)*

SECTION 3

HAZARDS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS

HIGHLY TOXIC (USA DEFINITION)

VERY TOXIC (EUROPEAN DEFINITION)

MAY CAUSE HERITABLE GENETIC DAMAGE.

VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

CONTACT WITH ACIDS LIBERATES VERY TOXIC GAS.

HEATING MAY CAUSE AN EXPLOSION.

AVOID CONTACT WITH METALS

TARGET ORGAN(S):

NERVES

HEART

IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE (SHOW THE LABEL WHERE POSSIBLE). WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION DO NOT BREATHE DUST.

SECTION 4

FIRST AID MEASURES

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
DO NOT USE WATER.
DRY CHEMICAL POWDER.

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SECTION 5

FIRE FIGHTING MEASURES

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6

ACCIDENTAL RELEASE MEASURES

EVACUATE AREA.

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.

SECTION 7

HANDLING AND STORAGE

AZIDE REACTS WITH MANY HEAVY METALS SUCH AS LEAD, COPPER, MERCURY, SILVER, GOLD TO FORM EXPLOSIVE COMPOUNDS. COPPER AND LEAD AZIDES ARE MORE SENSITIVE THAN NITROGLYCERINE. AZIDE REACTS WITH METAL HALIDES TO GIVE A RANGE OF METAL AZIDE HALIDES, MANY OF WHICH ARE EXPLOSIVE. INCOMPATIBLE WITH CHROMYL CHLORIDE, HYDRAZINE, BROMINE, CARBON DISULFIDE, DIMETHYL SULFATE, DIBROMOMALONITRILE. AN EXPLOSION OCCURED WHEN A MIXTURE OF SODIUM AZIDE, METHYLENE CHLORIDE, DIMETHYL SULFOXIDE AND SULFURIC ACID WERE BEING CONCENTRATED ON A ROTARY EVAPORATOR.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

WEAR APPRORIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

USE ONLY IN A CHEMICAL FUME HOOD.

SAFETY SHOWER AND EYE BATH.

DO NOT BREATHE DUST.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

HIGHLY TOXIC.

MUTAGEN.

KEEP TIGHTLY CLOSED.

HEAT-SENSITIVE.

STORE IN A COOL DRY PLACE.

SECION 9

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

SOLID

SPECIFIC GRAVITY: 1.850

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SECTION 10 STABILITY AND REACTIVITY

INCOMPATIBILITIES AVOID CONTACT WITH METALS. AVOID CONTACT WITH ACID. EXPLODES WHEN HEATED.

ACID CHLORIDES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS NITROGEN OXIDES

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.

MAY CAUSE EYE IRRITATION.

MAY CAUSE SKIN IRRITATION.

EXPOSURE CAN CAUSE:

NAUSEA, HEADACHE, AND VOMITING.

CHRONIC EFFECTS

MAY ALTER GENETIC MATERIAL.

TARGET ORGAN(S):

NERVES, HEART, BRAIN

ADDITIONAL INFORMATION

LABORATORY EXPERIMENTS IN ANIMALS HAVE SHOWN SODIUM AZIDE TO PRODUCE A

HYPOTENSION EFFECT, DEMYELINATION OF MYELINATED NERVE FIBERS IN THE

CENTRAL NERVOUS

SYSTEM, TESTICULAR DAMAGE, BLINDNESS, ATTACKS OF RIGIDITY, HEPATIC AND CEREBRAL EFFECTS.

RTECS NO: VY8050000

SODIUM AZIDE

TOXICITY DATA

ORL-WMN LDLO:14 MG/KG JFSCAS 35,193,90 ORL-MAN LDLO:143 MG/KG JTCTDW 24,339,86 ORL-RAT LD50:27 MG/KG FMCHA2 -,C30,89

ORL-MUS LD50:27 MG/KG CLDND*

IPR-MUS LD50:28 MG/KG JIHTAB 30,98,48

IVN-MUS LD50:19 MG/KG CLDND*

UNR-MUS LD50:27 MG/KG BJCAAI 6,160,52 SKN-RBT LD50:20 MG/KG FMCHA -,C30,89

ORL-BWD LD50:23700 UG/KG AECTCV 12,355,83

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (MYDRIASIS)

BEHAVIORAL (GENERAL ANESTHETIC)

BEHAVIORAL (SOMNOLENCE)

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)

BEHAVIORAL (CHANGE IN MOTOR ACTIVITY)

BEHAVIORAL (HEADACHE)

BEHAVIORAL (IRRITABILITY)

CARDIAC (ARRYTHMIAS)

CARDIAC (CHANGE IN FORCE OF CONTRACTION)

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SECTION 11 TOXICOLOGICAL INFORMATION

VASCULAR (BP LOWERING NOT CHARACTERIZED IN AUTONOMIC SECTION)

LUNGS, THORAX OR RESPIRATION (DYSPNAE)

LUNGS, THORAX OR RESPIRATION (RESPIRATORY STIMULATION)

GASTROINTESTINAL (HYPERMOTILITY, DIARRHEA)

KIDNEY, URETER, BLADDER (OTHER CHANGES)

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

CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14 TRANSPORT INFORMATION

DATA NOT YET AVAILABLE

SECTION 15 REGULATORY INFORMATION

REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-CL 0.3 MG/M3 85INA8 5,533,86
OSHA PEL FINAL:CL 0.3 MG(NAN3)/M3 (SKIN) FEREAC 54,2923,89
OSHA PEL FINAL:CL 0.1 PPM(HN3) (SKIN) FEREAC 54,2923,89

OEL-AUSTRALIA:TWA 0.1 PPM (0.3MG/M3)
OEL-BELGIUM:STEL 0.11 PPM (0.3 MG/M3
OEL-DENMARK:TWA 0.3 MG/M3
JANUARY 1993
JANUARY 1993

OEL-FINLAND:TWA 0.1 PPM (0.3 MG/M3); STEL 0.3 PPM(0.9 MG/M3)

JANUARY 1993

OEL-FRANCE:STEL 0.1 PPM(0.3 MG/M3) JANUARY 1993

OEL-GERMANY:TWA 0.07 PPM (0.2 MG/M3);

JANUARY 1993

OEL-THE NETHERLANDS:TWA 0.1 PPM (0.3 MG/M3); JANUARY 1993

OEL-SWITZERLAND:TWA 0.07 PPM (0.2 MG/M3); JANUARY 1993 OEL-UNITED KINGDOM:TWA 0.1 PPM (0.3 MG/M3); STEL 0.1 PPM(0.3 MG/M3) JANUARY 1993

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA, NEW ZEALAND, SINGAPORE, VIETNAM

NIOSH REL TO SODIUM AZIDE, AS HN3-AIR:CL 0.1 PPM (SK)

NIOSH* DHHS #92-100.92

CHECK ACGIH TLV

NOHS 1974: HZD 68820; NIS 13; TNF 877; NOS 10; TNE 5953

NOES 1983: HZD 68820; NIS 19; TNF 3640; NOS 27; TNE 54959; TFE 38370

EPA GENETOX PROGRAM 1988, POSITIVE: L5178Y CELLS IN VITRO-TK TEST

EPA GENETOX PROGRAM 1988, POSITIVE: D MELANOGASTER SEX-LINKED LETHAL

EPA GENETOX PROGRAM 1988, POSITIVE: S CEREVISIAE GENE CONVERSION

EPA GENETOX PROGRAM 1988, POSITIVE: S CEREVISIAE-FORWARD MUTATION; S

CEREVISIAE-REVERSION

EPA GENETOX PROGRAM 1988, NEGATIVE: IN VITRO CYTOGENETICS-HUMAN LYMPHOCYTE

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SECTION 15

REGULATORY INFORMATION

EPA GENETOX PROGRAM 1988, NEGATIVE: SPERM MORPHOLOGY-MOUSE; IN VITRO

UDS-HUMAN FIBROBLAST

EPA GENETOX PROGRAM 1988, NEGATIVE: TRP REVERSION

EPA GENETOX PROGRAM 1988, INCONCLUSIVE: CARCINOGENICITY-MOUSE/RAT;

TRP REVERSION

EPA TSCA CHEMICAL INVENTORY, JANUARY 1993

EPA TSCA SECTION 8(E) STATUS REPORT 8EHQ-1083-0494

ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, SEPTEMBER 1993

NIOSH CURRENT INTELLIGENCE BULLETIN 13, 1976

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