

MATERIAL SAFETY DATA SHEET

MANUFACTURER

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PRODUCT IDENTIFICATION

PRODUCT: BCIP/NBT Substrate Kit
CATALOG #: 10-0007

HAZARDOUS COMPONENT INFORMATION

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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SECTION 1

CHEMICAL IDENTIFICATION

NAME: **BCIP/NBT SUBSTRATE**

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

NBT (MOLECULAR FORMULA $C_{40}H_{30}Cl_2N_{10}O_6$ IN CSH_7NO ; MOLECULAR WEIGHT 817.65)
BCIP (MOLECULAR FORMULA $C_8H_6NO_4BRCLP.C_7H_9N$; MOLECULAR WEIGHT 433.6)

BOTH INGREDIENTS ARE CLASSIFIED ACCORDING TO EEC DIRECTIVE 88/379, THE CHEMICALS ACT AND HAZARDOUS GOODS REGULATIONS AS HAZARDOUS.

TRIS

DIMETHYLFORMAMIDE

SODIUM AZIDE (CAS-NO. 26628-22-8; EINECS-NO. 247-852-1; MOLECULAR WEIGHT 65.01; MOLECULAR FORMULA N_3NA ; S: T+)

SECTION 3

HAZARDS IDENTIFICATION

CONDITIONS TO AVOID

EXCESS HEAT, FLAME OR PRESSURE.

SUBSTANCES TO AVOID

N_3NA LIBERATES VERY TOXIC GAS IN CONTACT WITH ACIDS.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

HYDROCHLORIC ACID AND NITRIC OXIDES.

FIRE AND EXPLOSION HAZARDS

INFLAMMABLE. EMITS TOXIC FUMES UNDER FIRE CONDITIONS. KEEP AWAY FROM INFLAMMABLE SOURCES.

SECTION 4

FIRST AID MEASURES

EXPOSURE

FIRST AID MEASURES

INHALATION

FRESH AIR. CONSULT DOCTOR IF FEELING UNWELL.

EYE CONTACT

FLUSH WITH COPIOUS AMOUNTS OF WATER WITH EYELID HELD WIDE OPEN. SUMMON EYE SPECIALIST IF NECESSARY.

SKIN CONTACT

WASH WITH COPIOUS AMOUNTS OF WATER. REMOVE CONTAMINATED CLOTHING.

INGESTION

SUMMON DOCTOR IMMEDIATELY! WATCH OUT FOR VOMITING: DANGER OF BREATHING DIFFICULTIES. KEEP BRONCHIAL TUBES FREE.

SECTION 5

FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA :

WATER SPRAY, CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIRE FIGHTING PROCEDURE: NOT REQUIRED.

SECTION 6**ACCIDENTAL RELEASE MEASURES**

TAKE UP WITH LIQUID-ABSORBENT MATERIAL, OR ABSORB WITH FLUID BINDERS AND DISPOSE OFF SUITABLY. FORWARD FOR DISPOSAL AND CLEAN UP AFFECTED AREA. REPLACE CONTAMINATED CLOTHING IMMEDIATELY. THERE IS NO RESTRICTION OF SPILLED SUBSTANCE. CONSULT A SPECIALIST FOR DISPOSAL OF THE SPILLED SUBSTANCE.

SECTION 7**HANDLING AND STORAGE**

HANDLING INFORMATION
NO SPECIAL REQUIREMENTS.
STORAGE INFORMATION
STORE AT 2-8 °C.

SECTION 8**EXPOSURE CONTROLS/PERSONAL PROTECTION****PERSONAL PRECAUTIONS**

THE USUAL PRECAUTIONS TAKEN WHEN HANDLING CHEMICALS SHOULD BE OBSERVED. REFER TO PRODUCT DATA SHEET FOR RECOMMENDED SPECIFIC USE.
DO NOT INHALE VAPORS, DO NOT GET IN EYES, ON SKIN OR CLOTHING. WASH HANDS THOROUGHLY AFTER HANDLING.

PERSONAL PROTECTION

RESPIRATORY PROTECTION : NONE REQUIRED IF VENTILATION IS ADEQUATE.
SKIN PROTECTION: REQUIRED. WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
EYE PROTECTION: REQUIRED. WEAR SAFETY GLASSES OR GOGGLES.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: LIQUID	FLASHING POINT: NO DATA AVAILABLE
COLOR: REDDISH-BROWN	EXPLOSION LIMITS
ODOR: ODORLESS	LOWER LIMIT: 2.2 VOL%
PH AT 200 G/L H ₂ O (20 °C): 4.5 – 5.5	UPPER LIMIT: 16.0 VOL%
BOILING RANGE: NO DATA AVAILABLE	VAPOR PRESSURE (25°C): 4 HPA
RELATIVE DENSITY: NO DATA AVAILABLE	SOLUBILITY IN WATER: COMPLETELY
MELTING POINT: NO DATA AVAILABLE	LOG P(O/W): NO DATA AVAILABLE
AUTOFLAMMABILITY: NO DATA AVAILABLE	
VISCOSITY DYNAMIC (20°C): NO DATA AVAILABLE	

SECTION 10**STABILITY AND REACTIVITY**

STABILITY

THERE ARE NO HAZARDOUS REACTIONS WHEN THE SUBSTANCE IS USED APPROPRIATELY. HAZARDOUS DECOMPOSITION PRODUCTS ARISE ONLY IN SMALL CONCENTRATIONS.

REACTIVITY

NO DATA AVAILABLE

SECTION 11**TOXICOLOGICAL INFORMATION**

TOXICOLOGICAL INFORMATION

LD₅₀ ORAL: 2800 MG/KG (RAT) LD₅₀ SKIN: 1400 MG/KG (RAT)
LD₅₀ ORAL: 3750 MG/KG (MOUSE) LD₅₀ INHALE: 2880 PPM (MOUSE)

HEALTH EFFECTS (ACUTE AND CHRONIC)

THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN DETERMINED. IT CONTAINS DMF WHICH IS A POTENT LIVER AND KIDNEY TOXIN. IT MAY BE FETOTOXIC. SYMPTOMS OF EXPOSURE MAY INCLUDE: IRRITATION AND NAUSEA. ALCOHOL INTOLERANCE IS POSSIBLE AND CAN LAST UP TO 4 DAYS FOLLOWING EXPOSURE. IT CONTAINS NBT SALTS WHICH CAN BE IRRITATING TO THE EYES, SKIN AND RESPIRATORY TRACT. IT ALSO CONTAINS TOLUIDINE WHICH IS SUSPECTED OF BEING A CANCER-CAUSING AGENT. IT MAY CAUSE METHEMOGLOGIN (REDUCED OXYGEN CONTENT IN THE BODY). SYMPTOMS MAY INCLUDE GRAYISH SKIN COLOR, HEADACHE AND DIZZINESS.

CHRONIC EFFECTS

MAY CAUSE BIRTH DEFECTS.

SECTION 12**ECOLOGICAL INFORMATION**

BIOLOGIC DEGRADATION: NO DATA AVAILABLE.

BEHAVIOR IN ENVIRONMENTAL COMPARTMENTS: NO DATA AVAILABLE.

ECOTOXIC EFFECTS: SUBSTANCE IS SLIGHTLY HAZARDOUS TO THE WATER SUPPLY.

SECTION 13**DISPOSAL CONSIDERATIONS**

PRODUCT: THERE ARE NO UNIFORM EC REGULATIONS FOR THE DISPOSAL OF CHEMICALS OR RESIDUES. CHEMICAL RESIDUES GENERALLY COUNT AS SPECIAL WASTE. THE DISPOSAL OF THE LATTER IS REGULATED IN THE EC MEMBER COUNTRIES THROUGH CORRESPONDING LAWS AND REGULATIONS. WE RECOMMEND THAT YOU CONTACT EITHER THE AUTHORITIES IN CHARGE OR APPROVED WASTE DISPOSAL COMPANIES WHICH WILL ADVISE YOU ON HOW TO DISPOSE OF SPECIAL WASTE.

PACKAGING: DISPOSAL IN ACCORDANCE WITH LOCAL PROVISIONS. CONTAMINATED PACKAGES SHOULD BE TREATED THE SAME AS THE PRODUCT ITSELF.

SECTION 14**TRANSPORT INFORMATION**

CLASSIFICATION FOR TRANSPORT BY AIR/SEA: MUST BE TREATED AS HAZARDOUS GOODS ACCORDING TO CURRENT REGULATIONS FOR TRANSPORTATION OF HAZARDOUS GOODS (GGVS/ADR, GGVE/RID, IMDG, IATA/ICAO)

SECTION 15**REGULATORY INFORMATION**

LABELING ACCORDING TO ECC DIRECTIVES.

<u>R</u>	<u>S</u>	<u>SYMBOL</u>
61-20/21-36	53-45	T
28-32-50/53	28-45-60-61	T+ N
36/38		XI
34, 37		
20/21/22	7/13, 2/13	XN

LABEL PRECAUTIONARY STATEMENTS: HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. MAY CAUSE BIRTH DEFECTS. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

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