

NOTE: The NIH-AIDS Reagent Program is using a new system to store and ship plasmids as dried DNA samples. We are currently transitioning all of our purified DNA reagents to this dried format. If your DNA reagent is supplied in a dry format, please see the [DNAstable PLUS](#) SDS below. Dried DNA samples will be shipped at room temperature and can be stored in a dry storage cabinet or in a moisture barrier bag at room temperature.

Reconstitution of dried DNA samples

1. Add 10 µl of water or aqueous buffer directly to the vial containing the dried DNA.
2. Incubate at room temperature for 15 min to allow complete rehydration.
3. Mix the sample by gently pipetting up and down to resuspend the sample, avoiding bubbles.

The recovered DNA is now ready to use in downstream applications. Reconstituted DNA reagents can be stored at -20°C or lower. Avoid freeze-thaw cycles as reagent degradation may result.

Original DNA samples were stabilized with [DNAstable PLUS](#) and then dried in a vacuum concentrator. Please refer to [the DNAstable PLUS handbook \(Biomatrix\)](#) if you have any additional questions about dried DNA storage or reconstitution.

We welcome your feedback! Please let us know your thoughts by sending an email to Christine Happel at Christine.happel@thermofisher.com.

If you have any problems with any of our dried DNA reagents please email Christine Happel at Christine.happel@thermofisher.com.

SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS REVISION 5, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

MANUFACTURER'S NAME

Biomatrica
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San Diego, California, USA 92121

EMERGENCY TELEPHONE

Information: 1-858-550-0308
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DATE PREPARED:

May 29, 2015

REVISION DATE:

June 12, 2015

PRODUCT NAME:

DNastable Plus

FORMULA:

Preparation/Mixture

PRODUCT USE:

Dry stabilization of purified DNA

This product is to be used only for Research and Development (R&D) purposes.

Section 2: Hazards Identification

GHS Hazard Class

Acute Toxicity Oral – Category 4
Acute toxicity Inhalation – Category 4
Skin Irritation – Category 2
Eye Irritation – Category 2A
Reproductive toxicity – Category 1B
Specific target organ toxicity – single exposure – Category 3, Respiratory system



Signal word:

Danger

Hazard Statement:

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/ eye protection/face protection.
P281	Use personal protective equipment as required.
P302 + P352	IF ON SKIN: wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
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 waste materials and container by following the waste disposal requirements of your country, state, or local authorities.

Precautionary Statements:

Prevention

Response

Storage

Disposal

HAZARD CLASSIFICATION:

Hazards not otherwise classified (HNOC) or not covered by GHS - None

FIRE AND EXPLOSION:

Not classified as hazardous based on IATA, IMDG, and DOT.

Product emits toxic fumes when burned.

POTENTIAL HEALTH EFFECTS:

<0 % of mixture consists of ingredients of unknown acute toxicity

APPEARANCE:

Colorless liquid

Doc. No. 3002-0615

Rev. No. 06/2015

Product: DNastable Plus

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NFPA Rating:

Component	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
DNastable Plus	2	1	0	----

Section 3: Composition, Information on Ingredients

Biomatrica is using the product's SDS as a means of notification to the customer to comply with the TSCA regulations, R&D Exemption 40CFR 720.36 requirements:

1. This product is to be used only for Research and Development (R&D) purposes.
2. A technically qualified individual must supervise the use of this product.
3. Health and Toxicity information is provided in this SDS.

PRODUCT COMPOSITION	APPROX %	CAS NO.	EINECS/ELINCS	CANADA DSL
TS-231962	0-10%	TS	N/N	N
TS-623458	0-10%	TS	N/N	Y
TS-387028	0.1-10%	TS	Y	Y

Some items on this SDS may be designated as trade secrets (TS). Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13.

Section 4: First Aid Measures

Description of First Aid Measures

Inhalation	Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Consult a physician.
Skin Contact	Immediately wash skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Consult a physician.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.
Ingestion	Never give anything to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries after Inhalation	May cause respiratory tract irritation.
Symptoms/Injuries after Skin Contact	May cause skin irritation. Symptoms may include redness, drying, defatting, and cracking of the skin.
Symptoms/Injuries after Eye Contact	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/Injuries after Ingestion	May be harmful if swallowed. May cause stomach distress, nausea, or vomiting.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

Section 5: Fire-fighting Measures

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture	Carbon oxides, nitrogen oxides (NOx), Borane/boron oxides, Sodium oxides.
Protective actions fire-fighters	Wear standard protective equipment and self-contained breathing apparatus for firefighting if necessary.
Further information	None

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Wear proper personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent spills or contaminated rinse water from entering sewers or watercourses.

Methods and materials for containment and cleaning up

In case of small spills, absorb with inert materials. Place in a chemical waste container.

Reference to other Sections

For personal protection reference section 8. For disposal reference section 13.

Section 7: Handling and Storage

Precautions for safe handling

- Wear proper protective equipment when handling this material.
- Avoid contact with skin, eyes, or clothing.
- Avoid formation of aerosols.
- Provide appropriate exhaust ventilation at places where this material is handled.
- Avoid contact with skin and eyes.
- Appropriate container should be used for disposal.
- For precautions see section 2.

Conditions for safe storage, including any incompatibilities

- Store upright in a cool, dry, well-ventilated place.
- Keep container closed when not in use.
- Utilize chemical segregation.
- Follow all applicable local regulations for handling and storage.

Specific uses

This product is intended for use in dry stabilization of purified DNA.

Section 8: Exposure Controls/Personal Protection

Control Parameters

PRODUCT COMPOSITION	ACGIH TLV	OSHA PEL	NIOSH REL	Remarks
TS-623458	STEL: 6 mg/m ³ TWA: 2 mg/m ³ [USA. ACGIH Threshold Limit Values (TLV)]	TWA: 10 mg/m ³ [USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000]	TWA: 5 mg/m ³ [USA. NIOSH Recommended Exposure Limits]	Upper Respiratory Tract irritation. Not classifiable as a human carcinogen.

Exposure controls

VENTILATION:

Always provide good general, mechanical room ventilation where this chemical/material is used.

SPECIAL VENTILATION CONTROLS:

Use this material inside totally enclosed equipment, or use it with local exhaust ventilation at points where vapors can be released into the workspace air.

RESPIRATORY PROTECTION:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the CEN European Standards (EU). Use a NIOSH/MSHA or European Standard (EN) approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

PROTECTIVE GLOVES:

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. Neoprene, butyl, or nitrile rubber gloves are recommended.

EYE PROTECTION:

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN PROTECTION:
WORK/HYGIENE PRACTICES:
OTHER EQUIPMENT:

Suitable protective clothing to prevent skin contact
Avoid breathing vapor. Avoid contact with eyes. Wash hands after handling.
Make safety shower, eyewash stations, and hand washing equipment available in the work area.

Section 9: Physical and Chemical Properties

	PRODUCT CRITERIA
APPEARANCE - COLOR:	Colorless
PHYSICAL STATE:	Liquid
ODOR:	No data available
ODOR THRESHOLD	No data available
PH	8.0 to 8.4
MELTING POINT/FREEZING POINT:	No data available
INITIAL BOILING POINT AND BOILING RANGE:	No data available
FLASH POINT:	No data available
EVAPORATION RATE:	No data available
FLAMMABILITY (Solid, gas)	No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	Not Measured
VAPOR PRESSURE	No data available
VAPOR DENSITY (AIR = 1)	No data available
RELATIVE DENSITY (@25 °C):	1.027077
SOLUBILITY(IES)	No data available
OXIDIZING PROPERTIES	No data available
PARTITION COEFFICIENT: n-octanol/water	No data available
AUTO IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY	No data available

Section 10: Stability and Reactivity

Reactivity: Not reactive.
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: Will not occur.
Conditions to Avoid: None
Incompatibility (Materials to Avoid): Strong oxidizing agents, Strong reducing agents.
Hazardous Decomposition Products: None

Section 11: Toxicological Information

There is no toxicological information available for the product.

GHS Required Criteria	Toxicity Criteria	Toxicity Information	Comments	Chemical Constituent
Acute Toxicity	LD50 (Oral/Rat):	4,500-5,000 mg/kg		TS-623458
	LD50 (Oral/Rat):	>2,000 mg/kg		TS-387028
	LD50 (Dermal/Rabbit):	>10,000 mg/kg		TS-623458
Skin Corrosion/Irritation		Data not available		
Serious Eye Damage / Eye Irritation	Eyes – Rabbit	Eye irritation		TS-387028
Respiratory or Skin Sensitization		Data not available		
Germ Cell Mutagenicity		Data not available		
Carcinogenicity	NTP	Not listed		
	IARC	Not listed		
	OSHA	Not listed		
Reproductive Toxicity		Data not available		
Developmental Toxicity	Specific Developmental Abnormalities (Oral/Rat)	Musculoskeletal system		TS-387028
STOT – Single Exposure	Inhalation	May cause respiratory irritation.		TS-231962
STOT – Repeated Exposure		Data not available		
Aspiration Hazard		Data not available		

STOT = Specific Target Organ Systemic Toxicity

Section 12: Ecological Information

Toxicity:	No information is available.	
Toxicity to fish:	LC50 - Carassius auratus (goldfish) - 178 mg/L - 72 h	TS-623458
	Flow-through test LC50 - Leuciscus idus (Golden orfe) - > 100 mg/L - 96 h	TS-387028
Toxicity to daphnia and other aquatic invertebrates:	EC50 - Daphnia magna (Water flea) - 1,085 - 1,402 mg/L - 48 h	TS-623458
	Static test EC50 - Daphnia - 245 mg/L - 48 h (OECD Test Guideline 202)	TS-387028
Toxicity to algae:	IC50 - Desmodesmus subspicatus (green algae) - 158 mg/L - 96 h	TS-623458
Persistence and degradability:	Biotic/Aerobic - Exposure time 28 d Result: 20 - 60 % - According to the results of tests of biodegradability this product is not readily biodegradable. (CO2 Evolution test)	TS-387028
Bioaccumulative potential:	Indication of bioaccumulation.	TS-387028
Mobility in soil:	No information is available.	
PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical assessment not required/not conducted	
Other adverse effects:	No information is available.	

Section 13: Disposal Considerations

Waste from residues/unused products: Follow the waste disposal requirements of your country, state, or local authorities.

Contaminated packaging: Contaminated packaging material should be disposed of as stated above for residues and unused product.

Rinsate: Do not dispose of rinse water containing product in a sanitary sewer system or stormwater drainage system.

Section 14: Transport Information

DOT TRANSPORT: Not Regulated

ADR = International Carriage of Dangerous Goods by Road Not Regulated

RAIL TRANSPORT: Not Regulated

SEA TRANSPORT: IMDG Not Regulated

AIR TRANSPORT: IATA/ICAO Not Regulated

Section 15: Regulatory Information

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

This product is in compliance with rules, regulations, and/or orders of TSCA and should be used in accordance with the Research and Development (R&D) exemption regulations of TSCA.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all SDS's that are copied and distributed for the material.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

The Section 313 toxic chemicals contained in this product are: None

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute.

The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

Florida Toxic Substance(s):	Not listed
Massachusetts's hazardous substance(s):	Not listed
Pennsylvania hazardous substance code(s):	Not listed
New Jersey	Not listed
Illinois	Not listed

Michigan
Minnesota

Not listed
Not listed

CANADA:

This SDS contains all of the information required by the Controlled Products Regulations (CPR).

WHMIS-INFORMATION:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR), SOR/88-66, Current to February 20, 2012. The classes of controlled products listed in the CPR, Section 32, Part IV, have been reviewed and based on Professional Judgment this product has been determined to not be WHMIS controlled.

EUROPEAN UNION:

This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Regulation (EC) No 1272/2008 on classification, labeling, and packaging (CLP) of substances and mixtures.

Section 16: Other Information

Initial issue date:	May 29, 2015
Final revision date:	June 12, 2015
Revision Number:	0
Revision explanation:	Initial release
Information Sources:	RTECS, ECHA, REACH, OSHA 29CFR 1910.1200

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