

MATERIAL SAFETY DATA SHEET**1. PRODUCT AND COMPANY IDENTIFICATION****Product Name:** *S. cerevisiae* VN-Fusion Library, Active Plasmid**Company Name & Address:** BIONEER CORPORATION
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NOTE : If this product is a kit or is supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product USE :

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutic, or other clinical use.

2. COMPOSITION/INFORMATION ON INGREDIENTS

The following list shows components of this product classified as hazardous based on physical properties and health effects :

Component	CAS NO.	Percent
No hazardous components		

3. HAZARDS IDENTIFICATION**< Emergency Overview >**

Occupational exposure presents little or no health hazard

Potential Health Effects:

Eye :

May cause irritation of the eye.

Skin:

May cause skin irritation.

Inhalation:

No toxicity expected from inhalation.

Ingestion:

Mildly irritating to mouth, throat, and stomach. Can cause abdominal discomfort.

Chronic:

No data on cancer.

4. FIRST AID MEASURES

Eye:

Fluse with water in an eyewash for at least 15minutes, holding eyelids open. Remove contact lenses, clean before re-use. Obtain medical attention if symptoms develop(redness, itching, etc.)

Skin:

Wash with plenty of soap and water. Obtain medical attention if symptoms develop(redness, itching, etc.). Remove contaminated Clothes, wash before re-use.

Inhalation:

Remove person to fresh air. Obtain medical attention unless effects are mild and temporary.

Ingestion:

Give plenty of water, if conscious. If vomiting coours naturally, wash mouth out. Be prepared to induce vomiting upon a physician's advice. Obtain medical attention if symptoms develop.

Note to Physicain: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flashpoint Deg C:	Not Available
Upper Flammable Limit %:	Not Available
Lower Flammable Limit %:	Not Available
Autoignition Temperature Deg C:	Not Available

Extinguishing Media :

Use means appropriate for surrounding materials.

Firefighting Techniques / Equipment :

Standard turnout gear("bunker gear'). Positive-pressure self-contained Breathing apparatus.

Hazardous Combustion Products:

Includes carbon dioxide, carbon monoxide, dense somke

6. ACCIDENTAL RELEASE MEASURES

Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to section 8 personal protection equipment recommendations.

Spill Cleanup:

Absorb spill : Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

7. HANDLING AND STORAGE

Storage of some material is regulated by federal, state, and /or local laws.

Storage pressure: Ambient

Handling Procedures: Keep closed or covered when not in use.

Storage Procedures : Suitable for most general chemical storage areas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Component	OSHA PEL	AGCIH TWA
No Hazardous components	(ppm)	(ppm)

Engineering Controls:

Area ventilation is generally adequate.

Personal Protective Equipment :

Eye :

Safety goggles (glasses).

Skin :

Protective gloves, a lab coat.

Respiratory :

No respiratory protection will be needed under normal industrial operating conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance / physical state : Liquid solution / suspension

Odor: No odor
Not established.
Not established.
Not established.

Specific Gravity / Density : 1.00

Octanol / water partition coeff : Not established.

Volatiles : Not established.

Evaporation Rate : 0.3 (BUTYLY Acetate = 1.0)

Viscosity : 0.98 cp at 20C

10. STABILITY AND REACTIVITY

Stability

Stable under ordinary conditions of use and storage.

Conditions to Avoid: Strong oxidizers.

Hazardous Decomposition Products:

10-1. STABILITY AND REACTIVITY (CONT.)

Carbon monoxide. Carbon dioxide.

Hazardous Polymerization: Not expected to occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity :

Dermal/Skin : Not determined.

Inhalation/Respiratory : Not determined.

Oral / Ingestion: Not determined.

Target Organs : No data found.

Carcinogenicity :

NTP : Not tested

IARC : Not listed

OSHA : Not regulated.

Other Toxicological Information

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Burn the material in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal state and local environmental regulations.

14. TRANSPORT INFORMATION

Not regulated.

15. REGULATORY INFORMATION

UNITED STATES :

TSCA :

This product is solely for research and development purpose only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically

qualified individuals.

Prop 65 Listed Chemicals : PROP 65 PERCENT

No Prop 65 Chemicals.

No 313 Chemicals.

CANADA

DSL/NDSL: Not determined.

Component WHMIS Classification

No Hazardous components

EUROPEAN UNION:

Product risk phrases: None assigned.

Product safety phrases : Not applicable.

Product Classification : Not Classification as hazardous

Component EINECS Number

No hazardous components

16. OTHER INFORMATION

HMIS Rating 0-4 :

Fire : Not Determined

Health : Not Determined

Reactivity : Not Determined

Abbreviations

N/A – Data is not applicable or not available

SARA – Superfund and Reauthorization Act

HMIS – Hazard Material Information System

WHMIS – Workplace Hazard Material Information System

NTP – National Toxicology Program

OSHA – Occupational Agency for Research on Cancer

IARC – International Agency for Drinking Water and Toxic Enforcement Act of 1986

PROP 65- California Inventory of Existing Commercial Chemical Substances

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features. BIONEER is not held liable for any damage resulting from handling or from contact with the above products.