

## BIO BASIC INC.

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MATERIAL SAFETY DATA SHEET

REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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Mar. 1<sup>st</sup>, 2010

### SECTION 1. ----- CHEMICAL IDENTIFICATION -----

Product name : E-64  
Product Number : SB8770 (EJ586)

### SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Synonyms : L-trans-3-Carboxyoxiran-2-carbonyl-L-leucylagmatine  
N-(trans-Epoxy succinyl)-L-leucine 4-guanidinobutylamide  
trans-Epoxy succinyl-L-leucylamido(4-guanidino)butane  
Formula : C<sub>15</sub>H<sub>27</sub>N<sub>5</sub>O<sub>5</sub>  
Molecular Weight : 357.40 g/mol  
CAS-No. EC-No. Index-No. Concentration [%]  
N-(trans-Epoxy succinyl)-L-leucine 4- guanidinobutylamide  
66701-25-5 - - -

### SECTION 3. ----- HAZARDS IDENTIFICATION -----

WHMIS Classification  
Not Rated Not Rated  
HMIS Classification  
Health Hazard: 0  
Flammability: 0  
Physical hazards: 0  
Potential Health Effects  
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Ingestion May be harmful if swallowed.

### SECTION 4. ----- FIRST-AID MEASURES -----

If inhaled  
If breathed in, move person into fresh air. If not breathing give artificial respiration  
In case of skin contact  
Wash off with soap and plenty of water.  
In case of eye contact  
Flush eyes with water as a precaution.  
If swallowed  
Never give anything by mouth to an unconscious person. Rinse mouth with water.

### SECTION 5. ----- FIRE FIGHTING MEASURES -----

Flammable properties  
Flash point no data available

Ignition temperature no data available  
Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Special protective equipment for fire-fighters  
Wear self contained breathing apparatus for fire fighting if necessary.

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

Personal precautions  
Avoid dust formation.  
Environmental precautions  
Do not let product enter drains.  
Methods for cleaning up  
Sweep up and shovel. Keep in suitable, closed containers for disposal.

**SECTION 7. ----- HANDLING AND STORAGE-----**

Handling  
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.  
Storage  
Keep container tightly closed in a dry and well-ventilated place. Store under argon.

**SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

Contains no substances with occupational exposure limit values.  
Personal protective equipment  
Respiratory protection  
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).  
Hand protection  
For prolonged or repeated contact use protective gloves.  
Eye protection  
Safety glasses  
Hygiene measures  
General industrial hygiene practice.

**SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----**

Appearance  
Form solid  
Colour white  
Safety data  
pH no data available  
Melting point no data available  
Boiling point no data available  
Flash point no data available  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Water solubility 20 g/l at 20 °C (68 °F)

**SECTION 10. ----- STABILITY AND REACTIVITY -----**

Storage stability  
Stable under recommended storage conditions.  
Materials to avoid  
Strong acids, Strong bases  
Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.  
Carbon oxides, nitrogen oxides (NOx)

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

Acute toxicity  
no data available  
Irritation and corrosion  
no data available  
Sensitisation  
no data available  
Chronic exposure  
no data available  
Signs and Symptoms of Exposure  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Potential Health Effects  
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Ingestion May be harmful if swallowed.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

Elimination information (persistence and degradability)  
no data available  
Ecotoxicity effects  
no data available  
Further information on ecology  
no data available

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

Product  
Observe all federal, state, and local environmental regulations.  
Contaminated packaging  
Dispose of as unused product.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

DOT (US)  
Not dangerous goods  
IMDG  
Not dangerous goods  
IATA  
Not dangerous goods

**SECTION 15. ----- REGULATORY INFORMATION -----**

TSCA Status  
Not On TSCA Inventory  
N-(trans-Epoxy succinyl)-L-leucine 4- guanidinobutylamide  
CAS-No.  
66701-25-5  
DSL Status  
This product contains the following components that are not on the Canadian DSL nor NDSL lists.  
N-(trans-Epoxy succinyl)-L-leucine 4- guanidinobutylamide  
CAS-No.  
66701-25-5

WHMIS Classification  
Not Rated Not Rated

**SECTION 16. ----- OTHER INFORMATION-----**

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BBI. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale