

**1. Identification of the Substance or Mixture/Preparation & of the Company/Undertaking****Product identifiers:****Product Name:** SB4**Part Number:** 100032**CAS-No's:** 1185-53-1; 7786-30-3; 9005-64-5; 7783-20-2**Recommended use of the chemical and restrictions on use:****Recommended use:** Reagent**Details of the supplier of the safety data sheet:****Manufacturer address:****BioSkryb Genomics, Inc.  
2810 Meridian Parkway, Suite 110  
Durham, NC 27713 USA****Company phone number:****+1 919-370-0841****E-mail address:****info@bioskryb.com****Emergency telephone number:****24 Hour Emergency Phone Number:** 1-800-535-5053**2. Hazards Identification****Classification of the substance or mixture:** Not a hazardous substance or mixture**GHS Label elements, including precautionary statements**

Not a hazardous substance or mixture.

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

### 3. Composition/Information on Ingredients

**Chemical characterization:**

Not a hazardous substance or mixture.

Component	CAS NO	Weight %
Tris-Cl	1185-53-1	Trade secret*
MgCl <sub>2</sub>	7786-30-3	Trade secret*
Tween-20	9005-64-5	Trade secret*
(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	7783-20-2	Trade secret*
Trade Secret Mixture	Trade secret	Trade Secret*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First Aid Measures

**Description of first aid measures:**

**Eye contact:** Immediate medical attention is required. Rinse immediately with plenty of water - also under the eyelids - for at least 15 minutes.

**Skin contact:** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation:** Move to fresh air. If not breathing, do not use mouth-to-mouth method if substance was ingested or inhaled; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

**Most important symptoms and effects:** Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to delicate tissues, and danger of perforation

**Notes to physician:** Treat symptomatically

### 5. Firefighting Measures

**Extinguishing media:** Use an extinguishing agent suitable for the surrounding area.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Special hazards arising from the substance or mixture:** Potassium oxides; carbon dioxide, carbon monoxide. Nitrogen oxides. Keep product and empty container away from heat and sources of ignition

**Advice for firefighters:** Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Further information:** No data available

## 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Evacuate surrounding areas. Ensure adequate ventilation. Avoid contact with skin, eyes, and inhalation of vapors. Do not use metal tools or equipment.

**Environmental precautions:** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

**Methods and materials for containment and cleaning up:** Keep in suitable, closed containers for disposal. Dilute with water and mop up if water-soluble. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of via a licensed waste disposal contractor.

## 7. Handling and Storage

**Precautions for safe handling:** Do not ingest. Avoid contact with skin, eyes, and clothing. Handle in accordance with good industrial hygiene and safety practice. Always wear recommended personal protective equipment. Keep container tightly closed when not in use. Do not reuse container.

**Conditions for safe storage:** Store between the following temperatures: -15 to -25°C (5 to 13°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Specific end use(s):** Apart from the uses mentioned in section 1, no other specific uses are stipulated.

For research use only. Not for use in diagnostic procedures.

## 8. Exposure Controls/Personal Protection

**Engineering Controls:** No special requirements to be met.

**Exposure controls:** Wear proper personal protective equipment.

**Eye/face protection:** No special requirement to be met.

**Skin and body protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for risk of exposure. Wash contaminated clothing before reusing.

**Respiratory protection:** No special equipment required.

**Control of environmental exposure:** Handle in accordance with good industrial hygiene and safety practice

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties:

- a) **Appearance Form:** Clear liquid
- b) **Odor:** Odorless
- c) **Odor Threshold:** No data available
- d) **pH:** 7.8-8.2
- e) **Melting point/freezing point:** No data available
- f) **Initial boiling point and boiling range:** No data available
- g) **Flash point:** No data available
- h) **Evaporation rate:** No data available
- i) **Flammability (solid, gas):** No data available
- j) **Upper/lower flammability or explosive limits:** No data available
- k) **Vapor pressure:** No data available
- l) **Vapor density:** No data available
- m) **Relative density:** No data available
- n) **Water solubility:** Soluble in water
- o) **Partition coefficient n-octanol/water:** No data available
- p) **Auto-ignition temperature:** No data available
- q) **Decomposition temperature:** No data available
- r) **Viscosity:** No data available
- s) **Explosive properties:** No data available
- t) **Oxidizing properties:** No data available

## 10. Stability and Reactivity

**Reactivity:** No further relevant information available.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available

**Conditions to avoid:** No data available

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** Potassium oxides

**Other decomposition products:** No data available

**Hazardous decomposition products formed under fire conditions:** No dangerous decomposition products known.

**In the event of fire:** See section 5

## 11. Toxicological Information

### Information on toxicological effects:

#### Acute toxicity:

Test Route: LD50 Oral for Cas#60-00-4; Species: Mouse; Result: 30 mg/kg

**Dermal:** No data available

**Skin corrosion/irritation:** No data available

**Serious eye damage/eye irritation:** No data available

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity:**

**IARC:** No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** No data available

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

**Additional Information:** No data available

## 12. Ecological Information

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety

assessment not required/not conducted

**Other adverse effects:** Discharge into the environment must be avoided.

## 13. Disposal Considerations

**Waste treatment methods:**

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging:** Dispose of as unused product

**Disposal of wastes:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. Transport Information

**DOT (US):** none

**IMDG:** none

**IATA:** none

## 15. Regulatory information

**SARA 302 Components:** This material does not contain any components with a section 302 EHS TPQ.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** none

## 16. Other 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. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Users must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

**BioSkryb Genomics, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.**