

1. Identification of the Substance or Mixture/Preparation & of the Company/Undertaking

Product identifiers:

Product Name: SN1

Part Number: 100021

CAS-No's: 7647-01-0; 1185-53-1

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.
info@bioskryb.com
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: mixture

Signal Word: Warning

Pictograms:

**Hazard statement(s):****Corrosive to Metals, Category 1, H290**

Harmful if swallowed.

Causes severe skin burns and eye damage

Precautionary Statements:

P234 Keep only in original container.

P390 Absorb spillage to prevent material damage.

P406 Store in corrosive resistant stainless-steel container with a resistant inner liner.
Avoid release to the environment.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Remove person to fresh air. Immediately call a POISON CENTER/doctor.

IF IN EYES: Rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Store locked up. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents/ container to an approved waste disposal plant.

3. Composition/Information on Ingredients

Constituents: Mixture

Hazardous ingredients:

Chemical name	CAS No	Weight-%
Hydrochloric Acid	7647-01-0	1 – 10%*
Tris, Hydrochloride	1185-53-1	5 – 10%*

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

4. First Aid Measures

Description of first aid measures:

Eye Contact: Rinse immediately with plenty of water - also under the eyelids - for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation: Move to fresh air.

Ingestion: Do NOT induce vomiting. If swallowed, drink plenty of water. Consult doctor if feeling unwell. Never give anything by mouth to an unconscious person

Most important symptoms and effects: Irritant effects. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

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.

Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture: Not combustible. Ambient fire may liberate hazardous vapors. Fire may cause evolution of hydrogen chloride gas

Advice for firefighters: Special protective equipment for fire-fighters. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information: Suppress gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors or aerosols. Evacuate the area, observe emergency procedures, consult an expert.

Advice for emergency responders: Wear protective equipment. See section 8.

Personal precautions, protective equipment and emergency procedures: Avoid breathing vapors, mist, or gas. Use personal protective equipment. Evacuate surrounding areas. Do not touch or walk through spilled material. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid contact with skin, eyes, and inhalation of vapors. Do not use metal tools or equipment. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up: Pick up and transfer to properly labeled containers.

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, 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: Ensure that eyewash stations and safety showers are close to the workstation location. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Exposure controls: Wear proper personal protective equipment. Exposure limit according to various agencies is in the range of 2-5 ppm.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin and body protection: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for risk of exposure. Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical product.

Hygiene measures: Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Respiratory protection: Required when vapors/aerosols are generated.

Control of environmental exposure: Handle in accordance with good industrial hygiene and safety practices.

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:** 1.0-3.0
- e) **Melting point/freezing point:** No data available
- f) **Initial boiling point and boiling range:** No data available for CAS# 7647-01-0; for CAS no# 1185-53-1 ≥ 225 °C at 1,013 hPa
- g) **Flash point:** No data available
- h) **Evaporation rate:** No data available
- i) **Flammability (solid, gas):** Inflammable
- j) **Upper/lower flammability or explosive limits:** No data available
- k) **Vapor pressure:** No data available for CAS# 7647-01-0; for CAS#1185-53-1 0 Pa at 20 °C
- l) **Vapor density:** No data available

- m) **Relative density:** No data available
Density: ca.1.03 g/cm³ at 68 °F (20 °C)
- n) **Water solubility:** at 68 °F (20 °C) soluble
- 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:** Not classified as explosive.
- t) **Oxidizing properties:** None
- u) **Corrosion:** May be corrosive to metals.

10. Stability and Reactivity

Chemical stability: The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions: None under normal processing.

Incompatible materials: Metals, metal alloys

Hazardous decomposition products: No data available

Hazardous decomposition products formed under fire conditions: None known based on information supplied.

In the event of fire: See section 5

11. Toxicological Information

Information on toxicological effects:

Likely route of exposure: Eye contact, skin contact

Target Organs: Eyes, skin, respiratory system, cornea, skin irritation

Possible damages: Slight skin irritation; Test: Rabbit - OECD Test Guideline 404

Eye irritation; Test: Rabbit - Result: Irreversible effects on the eye - OECD Test Guideline 405

Sensitization: Maximization test - guinea pig

Result: Does not cause skin sensitization. Method: OECD Test Guideline 406

Specific target organ systemic toxicity - single exposure: The substance or mixture is not classified as specific target.

Specific target organ systemic toxicity - repeated exposure: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard: Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity:

IARC: No component 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: Regarding the available data the classification criteria are not fulfilled.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. Handle in accordance with good industrial hygiene and safety practices.

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: Smaller quantities can be disposed of with household waste.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

Combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused container.

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

14. Transport Information

DOT (US): Classified under HAZMAT Class 8

IMDG: Classified under HAZMAT Class 8

IATA: Classified under HAZMAT Class 8

15. Regulatory information

SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302: Ingredients: hydrochloric acid

SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313: Ingredients: hydrochloric acid

SARA 311/312 Hazards: Acute Health Hazard

Clean Water Act: The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A: Ingredients: hydrochloric acid

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3: Ingredients: hydrochloric acid
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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.