

SAFETY DATA SHEET

Article 1 – Product Identification

Product Name: T7 High-Yield RNA Synthesis Kit

Catalog # T702-K598

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Supplier of Datasheet:	SignalChem Diagnostics Inc.
Street Address:	190-13160 Vanier Place
City, Prov. Postal Code:	Richmond, BC, V6V 2J2
Country:	Canada
Phone Number:	1-888-606-3424 (Toll-free) 1-778-326-0223 (local)

Emergency Phone Number:	In case of an emergency contact your local poison control center
Canada:	1-844-764-7669
USA:	1-800-222-1222

Article 2 – Hazard Identification

- **WHMIS Classification:** Not WHMIS controlled.
- **GHS classification:** Not GHS classified.
- **Hazard Pictograms:** No labelling applicable.
- **Signal words:** None.
- **Hazard statements:** None.
- **Precautionary statements:**
 - Eyes: May cause eye irritation in susceptible individuals.
 - Skin: May cause skin irritation in susceptible individuals.
 - Inhalation: May be harmful if inhaled.
 - Ingestion: May be harmful if ingested.
- **Other hazards:** None known.

Article 3 – Composition/Information on Ingredients

Component: T7 RNA Polymerase Mix

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Component: 10X Transcription Buffer

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Component: ATP (100 mM)

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Component: CTP (100 mM)

Chemical Characterization: Mixtures.

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Description: This product contains no substances considered harmful to health at the given concentration.

Component: GTP (100 mM)

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Component: UTP (100 mM)

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Component: Control DNA Template (500ng/μL)

Chemical Characterization: Mixtures.

Description: This product contains no substances considered harmful to health at the given concentration.

Article 4 – First-aid Measures

- **General information:** Consult a physician by providing the SDS.
- **After inhalation:** In case of irritation by inhaling this product, move the affected person to fresh air and await recovery. If irritation persists, seek immediate medical attention. If the casualty cannot breathe, give artificial respiration and seek immediate medical attention.
- **After skin contact:** Rinse with plenty of water for at least 15 minutes. Consult a physician if any reaction occurs.
- **After eye contact:** Rinse open eyes with plenty of water for at least 15 minutes. Consult a physician.
- **After swallowing:** Rinse the mouth with plenty of water and consult a physician.

Article 5 – Fire-fighting Measures

- **Suitable extinguishing media:** Use carbon dioxide, extinguishing powder or foam.
- **Unsuitable extinguishing media:** No information available.
- **Specific hazards arising from the substance or mixture:** None known.
- **Special protective equipment and precautions for fire-fighters:** Self-contained breathing apparatus if necessary.

Article 6 – Accidental Release Measures

- **Personal precautions, protective equipment, and emergency procedures:** Apply standard laboratory practices and personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.
- **Environmental precautions:** Do not allow to enter drains.
- **Methods and materials for containment and cleaning up:** Absorb via sand, vermiculite or any other inert absorbent material. Place in closed containers for disposal.

Article 7 – Handling and Storage

- **Precautions for safe handling:** Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, and contact with eyes, skin, or clothing.
- **Conditions for safe storage:** Store according to product label instructions. Keep the container upright and tightly closed in a dry, cool and well-ventilated place.
- **Specific end use:** For research use only.

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Article 8 - Exposure Controls/Personal Protection

- **Components with limit monitoring values at workplace:** N/A
- **Appropriate engineering controls:**
Apply adequate ventilation including mechanical exhaust or laboratory fume hood. Follow standard laboratory practices.
- **Individual protection measures:**
 - Respiratory protection:**
If ventilation is inadequate, use respirators and components that are tested and certified in compliance with applicable government standards.
 - Hand protection:**
Wear gloves and use proper glove removal techniques to avoid skin contact. Discard gloves after use by following the applicable laboratory regulations. Wash and dry hands.
 - Eye/face protection:**
Safety goggles with side-shields tested and certified in compliance with applicable government standards.
 - Skin/body protection:**
Use appropriate clothing, footwear and any additional protection measures to protect from splashes or contamination.

Article 9 - Physical and Chemical Properties

Component 1: T7 RNA Polymerase Mix

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 2: 10X Transcription Buffer

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 3: ATP (100 mM)

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.

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Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 4: CTP (100 mM)

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 5: GTP (100 mM)

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 6: UTP (100 mM)

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.
Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-Ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Component 7: Control DNA Template (500ng/μL)

Physical state: Liquid.	Color: Not determined.
Odour/Odour Threshold: Not determined.	Particle characteristics: Not applicable.
Melting point/freezing point: Not determined.	pH: Not determined.
Boiling point/Boiling range: Not determined.	Viscosity: Not determined.
Flammability (solid, gaseous): Not applicable.	Solubility: Not determined.
Explosion/Flammability limits: Not determined.	Partition coefficient n-octanol/ water: Not determined.

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Flash point: Not determined.	Vapor pressure at 20 °C: Not determined.
Auto-ignition temperature: Not determined.	Density/relative density: Not determined.
Decomposition temperature: Not determined.	Relative vapor density: Not determined.

Article 10 - Stability and Reactivity

- **Reactivity:** Stable under recommended transport and storage conditions.
- **Chemical stability:** Stable under recommended transport and storage conditions.
- **Possible hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Heat and moisture.
- **Incompatible materials:** Strong acids/bases, strong oxidizing/reducing agents.
- **Hazardous decomposition products:** Carbon oxides may be formed under fire conditions; no known decomposition information for other decomposition products.

Article 11 - Toxicological Information

- **Acute toxicity:** Not available.
- **LD/LC50:** Not available.
- **Skin corrosion/irritation:** Not available.
- **Serious eye damage/eye irritation:** Not available.
- **Respiratory or skin sensitization:** Not available.
- **Germ cell mutagenicity:** Not available.
- **Carcinogenicity:** No components are listed in IARC, or NTP, or OSHA, or ACGIH.
- **Reproductive toxicity:** Not available.
- **Teratogenicity:** Not available.
- **Specific target organ toxicity - single exposure/ - repeated exposure (GHS):** Not available.
- **Aspiration hazard:** Not available.
- **Potential routes of exposure:**
 - Inhalation:** May be harmful if inhaled.
 - Ingestion:** May be harmful if swallowed.
 - Skin:** Not available.
 - Eyes:** Not available.
- **Signs and Symptoms of Exposure:** Not available.
- **Synergistic effects:** Not available.

Article 12 - Ecological Information

- **Eco-toxicity:** No data available.
- **Biodegradability:** No data available.
- **Bio-accumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **PBT and vPvB assessment:** No data available.
- **Other adverse effects:** No data available.

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Article 13 - Disposal Considerations

- **Disposal methods:** Dispose in accordance with applicable national, regional, or local laws and regulations. For additional handling information and protection of employees please refer to Article 7 and 8.
- **Contaminated packaging:** Dispose in accordance with applicable national, regional, or local laws and regulations. Use water or cleansing agents to clean the area.

Article 14 - Transport Information

- **DOT:** Not dangerous goods.
- **IMDG:** Not dangerous goods.
- **IATA:** Not dangerous goods.
- **UN number:** Not applicable.
- **UN proper shipping name:** Not applicable.
- **Transport hazard class:** Not applicable.
- **Packing group:** Not applicable.
- **Environmental hazards:** Not applicable.
- **Transport in bulk according to IMO instruments:** Not applicable.
- **Special precautions for user:** Not applicable.

Article 15 - Regulatory Information

- **Canada Federal Regulations:** This product has been classified in accordance with the hazard criteria of the Hazardous products Regulations (HPR) and the SDS contains all the information required by the HPR.

Article 16 - Other Information

- **Version #:** 1.0
- **Issued date:** 2025-03-24

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.