

## SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| Product name            | DeepCatch™ Beads 1                                                                           |
| Kit / Catalog number    | DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible) / GM1216, GM1248 |
| Version / Revision date | Version 3.0 / 07/24/2026                                                                     |

## SECTION 1. IDENTIFICATION

|                                  |                                                                                                                          |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Product identifier               | DeepCatch™ Beads 1                                                                                                       |
| Other means of identification    | Component of DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible), Cat. No. GM1216, GM1248        |
| Recommended use                  | Laboratory reagent used in recovery and purification of short nucleic acids from lysate-compatible flow-through samples. |
| Restrictions on use              | For research use only. Not for use in diagnostic procedures.                                                             |
| Manufacturer / responsible party | GM Biosciences, Inc.                                                                                                     |
| U.S. address                     | 5350 Partners Ct., Suite C, Frederick, MD 21703, USA                                                                     |
| Telephone                        | 240-595-9177                                                                                                             |
| Email                            | support@gmbiosciences.com                                                                                                |
| Emergency telephone              | 240-595-9177 (normal business hours: 10:00 AM-5:00 PM Eastern Time)                                                      |

## SECTION 2. HAZARD(S) IDENTIFICATION

No GHS  
pictogram**Not classified as a hazardous substance or mixture under the OSHA Hazard Communication Standard based on the information supplied.**

No signal word, hazard statement, or mandatory precautionary statement is required.

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| Other hazards                    | None known. Standard laboratory precautions should be observed. |
| Hazards not otherwise classified | No applicable information available.                            |

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name                                      | CAS No.        | Concentration (% w/w) | Notes    |
|----------------------------------------------------|----------------|-----------------------|----------|
| No hazardous ingredients required to be disclosed. | Not applicable | Not applicable        | Mixture. |

*Note: Concentration is expressed as weight percent unless otherwise stated.*

## SECTION 4. FIRST-AID MEASURES

|                |                                                                                                                  |
|----------------|------------------------------------------------------------------------------------------------------------------|
| General advice | No special measures are expected to be required. Show this SDS to medical personnel if medical advice is sought. |
| Inhalation     | Move to fresh air if discomfort occurs. Seek medical advice if symptoms persist.                                 |
| Skin contact   | Rinse with water. Remove contaminated clothing. Seek medical advice if irritation occurs.                        |

|                                        |                                                                                                                                                                 |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>                     | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical advice if irritation persists. |
| <b>Ingestion</b>                       | Rinse mouth. Do not induce vomiting. Seek medical advice if the person feels unwell.                                                                            |
| <b>Most important symptoms/effects</b> | No significant acute or delayed effects are known under normal conditions of use.                                                                               |
| <b>Immediate medical attention</b>     | Treat symptomatically.                                                                                                                                          |

## SECTION 5. FIRE-FIGHTING MEASURES

|                                       |                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Water spray, foam, dry chemical, or carbon dioxide. Use measures appropriate to the surrounding fire.                            |
| <b>Unsuitable extinguishing media</b> | No specific limitation known.                                                                                                    |
| <b>Specific hazards</b>               | The product is not expected to be flammable. Heating may generate irritating fumes from container or minor organic constituents. |
| <b>Firefighter protection</b>         | Use standard protective equipment and self-contained breathing apparatus when required by the surrounding fire.                  |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                  |                                                                                                                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | Use normal laboratory PPE. Avoid splashes and unnecessary contact.                                                                                                                    |
| <b>Environmental precautions</b> | No special environmental precautions are expected to be necessary; avoid uncontrolled release.                                                                                        |
| <b>Containment and cleanup</b>   | Absorb liquid with inert material and place in a suitable container. For bead suspensions, collect the suspension without allowing it to dry and disperse. Clean the area with water. |

## SECTION 7. HANDLING AND STORAGE

|                                      |                                                                                                                                             |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b> | Follow good laboratory practice. Avoid contact with eyes and skin. Do not eat, drink, or smoke while handling.                              |
| <b>Conditions for safe storage</b>   | Store at 2-8 °C. Do not freeze. Keep container tightly closed and properly labeled.                                                         |
| <b>Specific end use</b>              | Laboratory reagent for recovery and purification of short nucleic acids from lysate-compatible flow-through samples. For research use only. |

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                                     |                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Occupational exposure limits</b> | Contains no substances with established occupational exposure limits based on the information supplied. |
| <b>Engineering controls</b>         | General laboratory ventilation is adequate under normal conditions of use.                              |
| <b>Eye/face protection</b>          | Safety glasses are recommended.                                                                         |
| <b>Hand protection</b>              | Laboratory gloves are recommended.                                                                      |
| <b>Skin/body protection</b>         | Laboratory coat or other suitable work clothing.                                                        |
| <b>Respiratory protection</b>       | Not normally required.                                                                                  |
| <b>Hygiene measures</b>             | Wash hands after handling and before breaks.                                                            |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                       |                                 |
|-----------------------|---------------------------------|
| <b>Physical state</b> | Liquid magnetic bead suspension |
| <b>Color</b>          | Brown to dark brown             |

|                                                     |                                                                                           |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Odor</b>                                         | Odorless                                                                                  |
| <b>Odor threshold</b>                               | No data available.                                                                        |
| <b>Melting point/freezing point</b>                 | No data available.                                                                        |
| <b>Initial boiling point/range</b>                  | No data available.                                                                        |
| <b>Flammability</b>                                 | Not expected to be flammable under normal conditions of use.                              |
| <b>Lower/upper explosion or flammability limits</b> | No data available.                                                                        |
| <b>Flash point</b>                                  | Not applicable or no data available for the aqueous formulation.                          |
| <b>Auto-ignition temperature</b>                    | No data available.                                                                        |
| <b>Decomposition temperature</b>                    | No data available.                                                                        |
| <b>pH</b>                                           | No data available.                                                                        |
| <b>Kinematic viscosity</b>                          | No data available.                                                                        |
| <b>Solubility</b>                                   | Magnetic particles are dispersible in the aqueous carrier; the particles are not soluble. |
| <b>Partition coefficient (n-octanol/water)</b>      | No data available.                                                                        |
| <b>Vapor pressure</b>                               | No data available.                                                                        |
| <b>Relative vapor density</b>                       | No data available.                                                                        |
| <b>Relative density</b>                             | No data available.                                                                        |
| <b>Evaporation rate</b>                             | No data available.                                                                        |
| <b>Particle characteristics</b>                     | Magnetic particles dispersed in an aqueous liquid; particle size data not available.      |

## SECTION 10. STABILITY AND REACTIVITY

|                                           |                                                                                                       |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | No specific reactivity hazard is known.                                                               |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.                                                          |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction is expected under normal use.                                                   |
| <b>Conditions to avoid</b>                | Extreme temperatures and contamination.                                                               |
| <b>Incompatible materials</b>             | Strong oxidizing agents; strong acids and bases may be incompatible with some formulation components. |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are expected under normal storage and use.                        |

## SECTION 11. TOXICOLOGICAL INFORMATION

|                                       |                                                                                                                              |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Likely routes of exposure</b>      | Eye contact, skin contact, ingestion, or inhalation of aerosol.                                                              |
| <b>Acute toxicity</b>                 | Not classified based on available information.                                                                               |
| <b>Skin corrosion/irritation</b>      | Not classified; transient irritation is possible in susceptible individuals.                                                 |
| <b>Serious eye damage/irritation</b>  | Not classified; direct contact may cause temporary discomfort.                                                               |
| <b>Respiratory/skin sensitization</b> | Not classified based on available information.                                                                               |
| <b>Germ cell mutagenicity</b>         | No data available; not classified.                                                                                           |
| <b>Carcinogenicity</b>                | No ingredient at $\geq 0.1\%$ is known to be listed as a carcinogen by IARC, NTP, or OSHA based on the information supplied. |
| <b>Reproductive toxicity</b>          | No data available; not classified.                                                                                           |

|                                        |                                                                      |
|----------------------------------------|----------------------------------------------------------------------|
| <b>STOT - single/repeated exposure</b> | No data available; not classified.                                   |
| <b>Aspiration hazard</b>               | Not classified.                                                      |
| <b>Symptoms</b>                        | No significant symptoms are expected under normal conditions of use. |

## SECTION 12. ECOLOGICAL INFORMATION

|                                      |                                                                   |
|--------------------------------------|-------------------------------------------------------------------|
| <b>Ecotoxicity</b>                   | No product-specific data available.                               |
| <b>Persistence and degradability</b> | No data available.                                                |
| <b>Bioaccumulative potential</b>     | No data available.                                                |
| <b>Mobility in soil</b>              | No data available.                                                |
| <b>Other adverse effects</b>         | No data available. Avoid uncontrolled release to the environment. |

## SECTION 13. DISPOSAL CONSIDERATIONS

|                                |                                                                                                                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste treatment methods</b> | Dispose of contents and container in accordance with federal, state, and local requirements. Small laboratory quantities may be handled according to institutional procedures. |
| <b>Contaminated packaging</b>  | Dispose of as unused product unless adequately cleaned. Do not reuse empty containers for other purposes.                                                                      |

## SECTION 14. TRANSPORT INFORMATION

|                            |                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOT (49 CFR)</b>        | Not regulated as a dangerous good.                                                                                                    |
| <b>IATA-DGR</b>            | Not regulated as a dangerous good.                                                                                                    |
| <b>IMDG Code</b>           | Not regulated as a dangerous good.                                                                                                    |
| <b>Special precautions</b> | Keep containers tightly closed and protected from damage. Final transport classification must be verified before commercial shipment. |

## SECTION 15. REGULATORY INFORMATION

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA Hazard Communication</b> | Not classified as hazardous under 29 CFR 1910.1200 based on the information supplied.                                              |
| <b>CERCLA</b>                    | No reportable component is known to be present.                                                                                    |
| <b>SARA 302/304</b>              | No listed extremely hazardous substance is known to be present.                                                                    |
| <b>SARA 311/312</b>              | No SARA hazard category is expected to apply.                                                                                      |
| <b>SARA 313</b>                  | No listed toxic chemical is known to exceed a reporting threshold.                                                                 |
| <b>TSCA</b>                      | Ingredients are expected to be listed on, or exempt from, the TSCA Chemical Substance Inventory. Verify before final release.      |
| <b>California Proposition 65</b> | No listed chemical is known to be present based on the information supplied. Verify against the current list before final release. |

## SECTION 16. OTHER INFORMATION

|                      |            |
|----------------------|------------|
| <b>Revision date</b> | 07/24/2026 |
| <b>Version</b>       | 3.0        |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Preparation status</b>  | Draft for regulatory review. Company, email, and emergency contact information are included. Final release requires qualified regulatory review and confirmation of the finished-mixture properties.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Classification note</b> | The classification and statements in this draft are based on information supplied by the product developer, the maximum disclosed concentration, and analogous reference SDSs. No independent physical, toxicological, or transport testing of the finished mixture was provided.                                                                                                                                                                                                                                                                                                                    |
| <b>Abbreviations</b>       | ACGIH: American Conference of Governmental Industrial Hygienists; DOT: U.S. Department of Transportation; GHS: Globally Harmonized System; IARC: International Agency for Research on Cancer; IATA: International Air Transport Association; IMDG: International Maritime Dangerous Goods; NTP: National Toxicology Program; OSHA: Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; SARA: Superfund Amendments and Reauthorization Act; SDS: Safety Data Sheet; STOT: Specific Target Organ Toxicity; TSCA: Toxic Substances Control Act; TLV: Threshold Limit Value. |

**Disclaimer:** The information provided in this Safety Data Sheet is believed to be accurate and represents the best information currently available to GM Biosciences, Inc. as of the revision date. The information is intended solely as guidance for the safe handling, use, processing, storage, transportation, disposal, and release of the designated product and is not to be considered a warranty or quality specification. The information relates only to the specific material identified and may not be valid when the material is used in combination with other materials or in any process unless specifically stated. GM Biosciences, Inc. assumes no responsibility for damage, injury, or loss resulting from improper handling, use contrary to recommended procedures, or failure to comply with applicable laws and regulations. Users are responsible for determining the suitability of this information for their particular purposes and for obtaining qualified regulatory review before commercial distribution.

## SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| <b>Product name</b>            | <b>W2 Concentrate</b>                                                                        |
| <b>Kit / Catalog number</b>    | DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible) / GM1216, GM1248 |
| <b>Version / Revision date</b> | Version 3.0 / 07/24/2026                                                                     |

## SECTION 1. IDENTIFICATION

|                                         |                                                                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Product identifier</b>               | W2 Concentrate                                                                                                           |
| <b>Other means of identification</b>    | Component of DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible), Cat. No. GM1216, GM1248        |
| <b>Recommended use</b>                  | Laboratory reagent used in recovery and purification of short nucleic acids from lysate-compatible flow-through samples. |
| <b>Restrictions on use</b>              | For research use only. Not for use in diagnostic procedures.                                                             |
| <b>Manufacturer / responsible party</b> | GM Biosciences, Inc.                                                                                                     |
| <b>U.S. address</b>                     | 5350 Partners Ct., Suite C, Frederick, MD 21703, USA                                                                     |
| <b>Telephone</b>                        | 240-595-9177                                                                                                             |
| <b>Email</b>                            | support@gmbiosciences.com                                                                                                |
| <b>Emergency telephone</b>              | 240-595-9177 (normal business hours: 10:00 AM-5:00 PM Eastern Time)                                                      |

## SECTION 2. HAZARD(S) IDENTIFICATION

|                                         |                                                                                                                                                                                                      |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA/GHS classification</b>          | Acute toxicity (oral), Category 4; Acute toxicity (inhalation), Category 4; Skin corrosion, Category 1C; Serious eye damage, Category 1; Hazardous to the aquatic environment (chronic), Category 3. |
| <b>Classification basis</b>             | Conservative draft classification based on the supplied $\geq 30$ to $< 60\%$ guanidinium thiocyanate concentration range and analogous aqueous-mixture SDS data.                                    |
| <b>Hazards not otherwise classified</b> | Contact with acids or bleach (sodium hypochlorite) may liberate toxic gases. Do not mix this product or its waste with acids, bleach, or strong oxidizing agents.                                    |

**Signal word: DANGER****Hazard statements:****H302 + H332 Harmful if swallowed or if inhaled.****H314 Causes severe skin burns and eye damage.****H412 Harmful to aquatic life with long lasting effects.****Precautionary statements**

- P260 Do not breathe mist or spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink, or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, and eye/face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
- P363 Wash contaminated clothing before reuse.

- P405 Store locked up.
- P501 Dispose of contents/container in accordance with applicable regulations.

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name           | CAS No.  | Concentration (% w/w) | Notes                                                                           |
|-------------------------|----------|-----------------------|---------------------------------------------------------------------------------|
| Guanidinium thiocyanate | 593-84-0 | >= 30 - < 60          | Exact concentration withheld as a trade secret. Synonym: guanidine thiocyanate. |

*Note: Concentration is expressed as weight percent unless otherwise stated.*

## SECTION 4. FIRST-AID MEASURES

|                                        |                                                                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                  | Move the exposed person out of the danger area. Show this SDS to medical personnel. Obtain immediate medical attention after significant exposure.                                                                                                                                |
| <b>Inhalation</b>                      | Move to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel may provide oxygen. Call a POISON CENTER or physician if the person feels unwell or symptoms occur.                                                                            |
| <b>Skin contact</b>                    | Take off immediately all contaminated clothing. Rinse skin with water/shower and wash thoroughly with soap and plenty of water for at least 15 minutes. Obtain immediate medical attention. Wash contaminated clothing before reuse.                                              |
| <b>Eye contact</b>                     | Rinse cautiously and immediately with water for at least 15 minutes, including under the eyelids. Remove contact lenses if present and easy to do. Continue rinsing and immediately call a POISON CENTER or physician. Serious and potentially irreversible eye damage may occur. |
| <b>Ingestion</b>                       | Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or physician. Never give anything by mouth to an unconscious person.                                                                                                                                        |
| <b>Most important symptoms/effects</b> | Harmful if swallowed or inhaled. Causes severe skin burns and serious eye damage. Exposure may cause respiratory irritation and gastrointestinal injury.                                                                                                                          |
| <b>Immediate medical attention</b>     | Treat symptomatically. Chemical burns may require urgent specialist evaluation. No specific antidote is known.                                                                                                                                                                    |

## SECTION 5. FIRE-FIGHTING MEASURES

|                                       |                                                                                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use measures appropriate to the surrounding fire.                                                                               |
| <b>Unsuitable extinguishing media</b> | No specific limitation known. Avoid methods that spread contaminated runoff.                                                                                                                          |
| <b>Specific hazards</b>               | The product is not expected to be flammable. Heating or fire may generate toxic or irritating fumes, including nitrogen oxides, sulfur oxides, carbon oxides, and thiocyanate decomposition products. |
| <b>Firefighter protection</b>         | Wear self-contained breathing apparatus and full protective equipment. Do not breathe combustion fumes and prevent contaminated firefighting runoff from entering drains or waterways.                |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                  |                                                                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | Restrict access. Ensure adequate ventilation. Avoid breathing mist or spray and avoid all contact with skin and eyes. Wear chemical-resistant gloves, protective clothing, and eye/face protection.                       |
| <b>Environmental precautions</b> | Prevent entry into drains, surface water, and soil. Stop the leak if it can be done safely.                                                                                                                               |
| <b>Containment and cleanup</b>   | Absorb with inert material such as sand, vermiculite, or universal binder. Collect in a closed, compatible, labeled container for hazardous-waste disposal. Clean the affected area with water after material is removed. |

|                        |                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special caution</b> | Do not use bleach, acids, or strong oxidizing cleaners on the spill or on waste containing this product; toxic gases may be released. |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 7. HANDLING AND STORAGE

|                                      |                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b> | Use with adequate ventilation. Do not breathe mist or spray. Avoid ingestion and all contact with skin and eyes. Wear protective gloves, protective clothing, and eye/face protection. Do not eat, drink, or smoke while handling. Wash thoroughly after handling.                                                                                 |
| <b>Conditions for safe storage</b>   | Store at room temperature in the original, tightly closed, properly labeled container. Keep in a dry, well-ventilated place. Protect from excessive heat and direct sunlight. Store away from acids, bleach (sodium hypochlorite), strong oxidizing agents, and incompatible chemicals. Store locked up or in a controlled-access laboratory area. |
| <b>Specific end use</b>              | Laboratory reagent for recovery and purification of short nucleic acids from lysate-compatible flow-through samples. For research use only.                                                                                                                                                                                                        |

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                                     |                                                                                                                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Occupational exposure limits</b> | No OSHA PEL or ACGIH TLV has been established for guanidinium thiocyanate.                                                                                                                                    |
| <b>Engineering controls</b>         | Provide effective general ventilation and local exhaust where mist or spray may be generated. Ensure eyewash stations and safety showers are immediately accessible.                                          |
| <b>Eye/face protection</b>          | Tightly fitting chemical splash goggles and a face shield.                                                                                                                                                    |
| <b>Hand protection</b>              | Chemical-resistant protective gloves. Select glove material and breakthrough time based on the glove supplier recommendation and the specific working conditions.                                             |
| <b>Skin/body protection</b>         | Laboratory coat and chemical-resistant protective clothing appropriate for corrosive liquids. Use closed footwear.                                                                                            |
| <b>Respiratory protection</b>       | Normally not required when adequate ventilation prevents mist or aerosol exposure. If exposure cannot be controlled, use a NIOSH-approved respirator selected under a written respiratory-protection program. |
| <b>Hygiene measures</b>             | Keep away from food and drink. Wash hands and exposed skin thoroughly after handling. Remove contaminated clothing immediately and wash before reuse.                                                         |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                     |                                                              |
|-----------------------------------------------------|--------------------------------------------------------------|
| <b>Physical state</b>                               | Liquid                                                       |
| <b>Color</b>                                        | Colorless to light yellow                                    |
| <b>Odor</b>                                         | Characteristic                                               |
| <b>Odor threshold</b>                               | No data available.                                           |
| <b>Melting point/freezing point</b>                 | No data available.                                           |
| <b>Initial boiling point/range</b>                  | No data available.                                           |
| <b>Flammability</b>                                 | Not expected to be flammable under normal conditions of use. |
| <b>Lower/upper explosion or flammability limits</b> | No data available.                                           |
| <b>Flash point</b>                                  | No data available for the aqueous formulation.               |
| <b>Auto-ignition temperature</b>                    | No data available.                                           |
| <b>Decomposition temperature</b>                    | No data available.                                           |
| <b>pH</b>                                           | No data available.                                           |
| <b>Kinematic viscosity</b>                          | No data available.                                           |
| <b>Solubility</b>                                   | Soluble or miscible in water.                                |

|                                                |                                       |
|------------------------------------------------|---------------------------------------|
| <b>Partition coefficient (n-octanol/water)</b> | No data available.                    |
| <b>Vapor pressure</b>                          | No data available.                    |
| <b>Relative vapor density</b>                  | No data available.                    |
| <b>Relative density</b>                        | No data available.                    |
| <b>Evaporation rate</b>                        | No data available.                    |
| <b>Particle characteristics</b>                | Not applicable to the liquid mixture. |

## SECTION 10. STABILITY AND REACTIVITY

|                                           |                                                                                                                                                                             |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | Stable under recommended conditions, but incompatible reactions may occur with acids, bleach, and strong oxidizing agents.                                                  |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.                                                                                                                                |
| <b>Possibility of hazardous reactions</b> | Thiocyanates may generate poisonous gases in contact with strong acids. Contact with bleach (sodium hypochlorite) or strong oxidizing agents may also liberate toxic gases. |
| <b>Conditions to avoid</b>                | Excessive heat, aerosol formation, and contact with incompatible chemicals.                                                                                                 |
| <b>Incompatible materials</b>             | Strong acids, bleach (sodium hypochlorite), strong oxidizing agents, and strong bases.                                                                                      |
| <b>Hazardous decomposition products</b>   | Nitrogen oxides, sulfur oxides, carbon oxides, and other toxic or irritating fumes may form during combustion, strong heating, or incompatible reactions.                   |

## SECTION 11. TOXICOLOGICAL INFORMATION

|                                        |                                                                                                                                                                                                                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Likely routes of exposure</b>       | Inhalation of mist or spray, eye contact, skin contact, and ingestion.                                                                                                                                             |
| <b>Acute toxicity</b>                  | Mixture conservatively classified as harmful if swallowed or inhaled. Guanidinium thiocyanate: reported oral LD50 (rat, female) 593 mg/kg; reported LD50 by another route (mouse) 300 mg/kg in reference SDS data. |
| <b>Skin corrosion/irritation</b>       | Causes severe skin burns. Corrosive and destructive to tissue.                                                                                                                                                     |
| <b>Serious eye damage/irritation</b>   | Causes serious eye damage and may cause irreversible injury.                                                                                                                                                       |
| <b>Respiratory/skin sensitization</b>  | Not classified based on available data.                                                                                                                                                                            |
| <b>Germ cell mutagenicity</b>          | Not classified based on available data.                                                                                                                                                                            |
| <b>Carcinogenicity</b>                 | No component at $\geq 0.1\%$ is known to be listed as a carcinogen by IARC, NTP, or OSHA based on available reference data.                                                                                        |
| <b>Reproductive toxicity</b>           | Not classified based on available data.                                                                                                                                                                            |
| <b>STOT - single/repeated exposure</b> | Not classified based on available data.                                                                                                                                                                            |
| <b>Aspiration hazard</b>               | Not classified based on available data.                                                                                                                                                                            |
| <b>Symptoms</b>                        | Chemical burns of skin and eyes; respiratory irritation after mist exposure; gastrointestinal injury if swallowed.                                                                                                 |

## SECTION 12. ECOLOGICAL INFORMATION

|                                      |                                                                                                                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b>                   | Mixture conservatively classified as harmful to aquatic life with long lasting effects. Guanidinium thiocyanate reference data: fish LC50 89.1 mg/L (96 h); Daphnia EC50 42.4 mg/L (48 h). |
| <b>Persistence and degradability</b> | No mixture-specific data available.                                                                                                                                                        |
| <b>Bioaccumulative potential</b>     | No mixture-specific data available. Significant bioaccumulation is not expected based on available information.                                                                            |
| <b>Mobility in soil</b>              | No data available.                                                                                                                                                                         |

|                              |                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Other adverse effects</b> | Avoid uncontrolled release to the environment. Guanidinium thiocyanate reference data include a fish NOEC of 25 mg/L. |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|

## SECTION 13. DISPOSAL CONSIDERATIONS

|                                |                                                                                                                                                                       |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste treatment methods</b> | Dispose of contents and container as hazardous chemical waste through a licensed waste-management provider in accordance with federal, state, and local requirements. |
| <b>Special precautions</b>     | Do not mix liquid waste containing this product with acids, bleach, or strong oxidizing agents. Do not discharge concentrated product to drains or the environment.   |
| <b>Contaminated packaging</b>  | Dispose of as unused product unless adequately decontaminated by a validated compatible procedure. Do not reuse empty containers.                                     |

## SECTION 14. TRANSPORT INFORMATION

|                            |                                                                                                                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOT (49 CFR)</b>        | UN 1760, Corrosive liquid, n.o.s. (guanidinium thiocyanate), Class 8, Packing Group III.                                                                                                                                                                               |
| <b>IATA-DGR</b>            | UN 1760, Corrosive liquid, n.o.s. (guanidinium thiocyanate), Class 8, Packing Group III.                                                                                                                                                                               |
| <b>IMDG Code</b>           | UN 1760, CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate), Class 8, Packing Group III; marine pollutant: no.                                                                                                                                                         |
| <b>Special precautions</b> | Transport classification is based on analogous aqueous guanidinium-thiocyanate mixtures. Package-size, limited-quantity, and mode-specific provisions may apply. Verify the actual formulation, package, and current transport regulations before commercial shipment. |

## SECTION 15. REGULATORY INFORMATION

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA Hazard Communication</b> | Hazardous chemical under 29 CFR 1910.1200 based on the draft classification in Section 2.                                          |
| <b>CERCLA</b>                    | No component with a reportable quantity is known to be present based on available reference data.                                  |
| <b>SARA 302/304</b>              | No extremely hazardous substance with an applicable threshold planning or reportable quantity is known to be present.              |
| <b>SARA 311/312</b>              | Acute toxicity; skin corrosion or irritation; serious eye damage or eye irritation.                                                |
| <b>SARA 313</b>                  | No listed toxic chemical is known to exceed the reporting threshold based on available reference data.                             |
| <b>TSCA</b>                      | Ingredients are expected to be listed on, or exempt from, the TSCA Chemical Substance Inventory. Verify before final release.      |
| <b>California Proposition 65</b> | No listed chemical is known to be present based on the information supplied. Verify against the current list before final release. |

## SECTION 16. OTHER INFORMATION

|                            |                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Revision date</b>       | 07/24/2026                                                                                                                                                                                                                                                                                          |
| <b>Version</b>             | 3.0                                                                                                                                                                                                                                                                                                 |
| <b>Preparation status</b>  | Draft for regulatory review. Company, email, and emergency contact information are included. Final release requires qualified regulatory review and confirmation of the finished-mixture properties.                                                                                                |
| <b>Classification note</b> | The classification and statements in this draft are based on information supplied by the product developer, the maximum disclosed concentration range, and analogous reference SDSs. No independent physical, toxicological, ecological, or transport testing of the finished mixture was provided. |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abbreviations | ACGIH: American Conference of Governmental Industrial Hygienists; DOT: U.S. Department of Transportation; GHS: Globally Harmonized System; IARC: International Agency for Research on Cancer; IATA: International Air Transport Association; IMDG: International Maritime Dangerous Goods; NTP: National Toxicology Program; OSHA: Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; SARA: Superfund Amendments and Reauthorization Act; SDS: Safety Data Sheet; STOT: Specific Target Organ Toxicity; TSCA: Toxic Substances Control Act; TLV: Threshold Limit Value. |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Disclaimer:** The information provided in this Safety Data Sheet is believed to be accurate and represents the best information currently available to GM Biosciences, Inc. as of the revision date. The information is intended solely as guidance for the safe handling, use, processing, storage, transportation, disposal, and release of the designated product and is not to be considered a warranty or quality specification. The information relates only to the specific material identified and may not be valid when the material is used in combination with other materials or in any process unless specifically stated. GM Biosciences, Inc. assumes no responsibility for damage, injury, or loss resulting from improper handling, use contrary to recommended procedures, or failure to comply with applicable laws and regulations. Users are responsible for determining the suitability of this information for their particular purposes and for obtaining qualified regulatory review before commercial distribution.

## SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| <b>Product name</b>            | <b>SS3 Buffer</b>                                                                            |
| <b>Kit / Catalog number</b>    | DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible) / GM1216, GM1248 |
| <b>Version / Revision date</b> | Version 3.0 / 07/24/2026                                                                     |

## SECTION 1. IDENTIFICATION

|                                         |                                                                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Product identifier</b>               | SS3 Buffer                                                                                                               |
| <b>Other means of identification</b>    | Component of DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible), Cat. No. GM1216, GM1248        |
| <b>Recommended use</b>                  | Laboratory reagent used in recovery and purification of short nucleic acids from lysate-compatible flow-through samples. |
| <b>Restrictions on use</b>              | For research use only. Not for use in diagnostic procedures.                                                             |
| <b>Manufacturer / responsible party</b> | GM Biosciences, Inc.                                                                                                     |
| <b>U.S. address</b>                     | 5350 Partners Ct., Suite C, Frederick, MD 21703, USA                                                                     |
| <b>Telephone</b>                        | 240-595-9177                                                                                                             |
| <b>Email</b>                            | support@gmbiosciences.com                                                                                                |
| <b>Emergency telephone</b>              | 240-595-9177 (normal business hours: 10:00 AM-5:00 PM Eastern Time)                                                      |

## SECTION 2. HAZARD(S) IDENTIFICATION

|                                         |                                                                                                                                                                                                      |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA/GHS classification</b>          | Acute toxicity (oral), Category 4; Acute toxicity (inhalation), Category 4; Skin corrosion, Category 1C; Serious eye damage, Category 1; Hazardous to the aquatic environment (chronic), Category 3. |
| <b>Classification basis</b>             | Conservative draft classification based on the supplied $\geq 30$ to $< 60\%$ guanidinium thiocyanate concentration range and analogous aqueous-mixture SDS data.                                    |
| <b>Hazards not otherwise classified</b> | Contact with acids or bleach (sodium hypochlorite) may liberate toxic gases. Do not mix this product or its waste with acids, bleach, or strong oxidizing agents.                                    |

**Signal word: DANGER****Hazard statements:****H302 + H332 Harmful if swallowed or if inhaled.****H314 Causes severe skin burns and eye damage.****H412 Harmful to aquatic life with long lasting effects.****Precautionary statements**

- P260 Do not breathe mist or spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink, or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, and eye/face protection.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
- P363 Wash contaminated clothing before reuse.

- P405 Store locked up.
- P501 Dispose of contents/container in accordance with applicable regulations.

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name           | CAS No.  | Concentration (% w/w) | Notes                                                                           |
|-------------------------|----------|-----------------------|---------------------------------------------------------------------------------|
| Guanidinium thiocyanate | 593-84-0 | >= 30 - < 60          | Exact concentration withheld as a trade secret. Synonym: guanidine thiocyanate. |

*Note: Concentration is expressed as weight percent unless otherwise stated.*

## SECTION 4. FIRST-AID MEASURES

|                                        |                                                                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                  | Move the exposed person out of the danger area. Show this SDS to medical personnel. Obtain immediate medical attention after significant exposure.                                                                                                                                |
| <b>Inhalation</b>                      | Move to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel may provide oxygen. Call a POISON CENTER or physician if the person feels unwell or symptoms occur.                                                                            |
| <b>Skin contact</b>                    | Take off immediately all contaminated clothing. Rinse skin with water/shower and wash thoroughly with soap and plenty of water for at least 15 minutes. Obtain immediate medical attention. Wash contaminated clothing before reuse.                                              |
| <b>Eye contact</b>                     | Rinse cautiously and immediately with water for at least 15 minutes, including under the eyelids. Remove contact lenses if present and easy to do. Continue rinsing and immediately call a POISON CENTER or physician. Serious and potentially irreversible eye damage may occur. |
| <b>Ingestion</b>                       | Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or physician. Never give anything by mouth to an unconscious person.                                                                                                                                        |
| <b>Most important symptoms/effects</b> | Harmful if swallowed or inhaled. Causes severe skin burns and serious eye damage. Exposure may cause respiratory irritation and gastrointestinal injury.                                                                                                                          |
| <b>Immediate medical attention</b>     | Treat symptomatically. Chemical burns may require urgent specialist evaluation. No specific antidote is known.                                                                                                                                                                    |

## SECTION 5. FIRE-FIGHTING MEASURES

|                                       |                                                                                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use measures appropriate to the surrounding fire.                                                                               |
| <b>Unsuitable extinguishing media</b> | No specific limitation known. Avoid methods that spread contaminated runoff.                                                                                                                          |
| <b>Specific hazards</b>               | The product is not expected to be flammable. Heating or fire may generate toxic or irritating fumes, including nitrogen oxides, sulfur oxides, carbon oxides, and thiocyanate decomposition products. |
| <b>Firefighter protection</b>         | Wear self-contained breathing apparatus and full protective equipment. Do not breathe combustion fumes and prevent contaminated firefighting runoff from entering drains or waterways.                |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                  |                                                                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | Restrict access. Ensure adequate ventilation. Avoid breathing mist or spray and avoid all contact with skin and eyes. Wear chemical-resistant gloves, protective clothing, and eye/face protection.                       |
| <b>Environmental precautions</b> | Prevent entry into drains, surface water, and soil. Stop the leak if it can be done safely.                                                                                                                               |
| <b>Containment and cleanup</b>   | Absorb with inert material such as sand, vermiculite, or universal binder. Collect in a closed, compatible, labeled container for hazardous-waste disposal. Clean the affected area with water after material is removed. |

|                        |                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special caution</b> | Do not use bleach, acids, or strong oxidizing cleaners on the spill or on waste containing this product; toxic gases may be released. |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 7. HANDLING AND STORAGE

|                                      |                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b> | Use with adequate ventilation. Do not breathe mist or spray. Avoid ingestion and all contact with skin and eyes. Wear protective gloves, protective clothing, and eye/face protection. Do not eat, drink, or smoke while handling. Wash thoroughly after handling.                                                                                 |
| <b>Conditions for safe storage</b>   | Store at room temperature in the original, tightly closed, properly labeled container. Keep in a dry, well-ventilated place. Protect from excessive heat and direct sunlight. Store away from acids, bleach (sodium hypochlorite), strong oxidizing agents, and incompatible chemicals. Store locked up or in a controlled-access laboratory area. |
| <b>Specific end use</b>              | Laboratory reagent for recovery and purification of short nucleic acids from lysate-compatible flow-through samples. For research use only.                                                                                                                                                                                                        |

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                                     |                                                                                                                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Occupational exposure limits</b> | No OSHA PEL or ACGIH TLV has been established for guanidinium thiocyanate.                                                                                                                                    |
| <b>Engineering controls</b>         | Provide effective general ventilation and local exhaust where mist or spray may be generated. Ensure eyewash stations and safety showers are immediately accessible.                                          |
| <b>Eye/face protection</b>          | Tightly fitting chemical splash goggles and a face shield.                                                                                                                                                    |
| <b>Hand protection</b>              | Chemical-resistant protective gloves. Select glove material and breakthrough time based on the glove supplier recommendation and the specific working conditions.                                             |
| <b>Skin/body protection</b>         | Laboratory coat and chemical-resistant protective clothing appropriate for corrosive liquids. Use closed footwear.                                                                                            |
| <b>Respiratory protection</b>       | Normally not required when adequate ventilation prevents mist or aerosol exposure. If exposure cannot be controlled, use a NIOSH-approved respirator selected under a written respiratory-protection program. |
| <b>Hygiene measures</b>             | Keep away from food and drink. Wash hands and exposed skin thoroughly after handling. Remove contaminated clothing immediately and wash before reuse.                                                         |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                     |                                                              |
|-----------------------------------------------------|--------------------------------------------------------------|
| <b>Physical state</b>                               | Liquid                                                       |
| <b>Color</b>                                        | Colorless to light yellow                                    |
| <b>Odor</b>                                         | Characteristic                                               |
| <b>Odor threshold</b>                               | No data available.                                           |
| <b>Melting point/freezing point</b>                 | No data available.                                           |
| <b>Initial boiling point/range</b>                  | No data available.                                           |
| <b>Flammability</b>                                 | Not expected to be flammable under normal conditions of use. |
| <b>Lower/upper explosion or flammability limits</b> | No data available.                                           |
| <b>Flash point</b>                                  | No data available for the aqueous formulation.               |
| <b>Auto-ignition temperature</b>                    | No data available.                                           |
| <b>Decomposition temperature</b>                    | No data available.                                           |
| <b>pH</b>                                           | No data available.                                           |
| <b>Kinematic viscosity</b>                          | No data available.                                           |
| <b>Solubility</b>                                   | Soluble or miscible in water.                                |

|                                                |                                       |
|------------------------------------------------|---------------------------------------|
| <b>Partition coefficient (n-octanol/water)</b> | No data available.                    |
| <b>Vapor pressure</b>                          | No data available.                    |
| <b>Relative vapor density</b>                  | No data available.                    |
| <b>Relative density</b>                        | No data available.                    |
| <b>Evaporation rate</b>                        | No data available.                    |
| <b>Particle characteristics</b>                | Not applicable to the liquid mixture. |

## SECTION 10. STABILITY AND REACTIVITY

|                                           |                                                                                                                                                                             |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | Stable under recommended conditions, but incompatible reactions may occur with acids, bleach, and strong oxidizing agents.                                                  |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.                                                                                                                                |
| <b>Possibility of hazardous reactions</b> | Thiocyanates may generate poisonous gases in contact with strong acids. Contact with bleach (sodium hypochlorite) or strong oxidizing agents may also liberate toxic gases. |
| <b>Conditions to avoid</b>                | Excessive heat, aerosol formation, and contact with incompatible chemicals.                                                                                                 |
| <b>Incompatible materials</b>             | Strong acids, bleach (sodium hypochlorite), strong oxidizing agents, and strong bases.                                                                                      |
| <b>Hazardous decomposition products</b>   | Nitrogen oxides, sulfur oxides, carbon oxides, and other toxic or irritating fumes may form during combustion, strong heating, or incompatible reactions.                   |

## SECTION 11. TOXICOLOGICAL INFORMATION

|                                        |                                                                                                                                                                                                                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Likely routes of exposure</b>       | Inhalation of mist or spray, eye contact, skin contact, and ingestion.                                                                                                                                             |
| <b>Acute toxicity</b>                  | Mixture conservatively classified as harmful if swallowed or inhaled. Guanidinium thiocyanate: reported oral LD50 (rat, female) 593 mg/kg; reported LD50 by another route (mouse) 300 mg/kg in reference SDS data. |
| <b>Skin corrosion/irritation</b>       | Causes severe skin burns. Corrosive and destructive to tissue.                                                                                                                                                     |
| <b>Serious eye damage/irritation</b>   | Causes serious eye damage and may cause irreversible injury.                                                                                                                                                       |
| <b>Respiratory/skin sensitization</b>  | Not classified based on available data.                                                                                                                                                                            |
| <b>Germ cell mutagenicity</b>          | Not classified based on available data.                                                                                                                                                                            |
| <b>Carcinogenicity</b>                 | No component at $\geq 0.1\%$ is known to be listed as a carcinogen by IARC, NTP, or OSHA based on available reference data.                                                                                        |
| <b>Reproductive toxicity</b>           | Not classified based on available data.                                                                                                                                                                            |
| <b>STOT - single/repeated exposure</b> | Not classified based on available data.                                                                                                                                                                            |
| <b>Aspiration hazard</b>               | Not classified based on available data.                                                                                                                                                                            |
| <b>Symptoms</b>                        | Chemical burns of skin and eyes; respiratory irritation after mist exposure; gastrointestinal injury if swallowed.                                                                                                 |

## SECTION 12. ECOLOGICAL INFORMATION

|                                      |                                                                                                                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b>                   | Mixture conservatively classified as harmful to aquatic life with long lasting effects. Guanidinium thiocyanate reference data: fish LC50 89.1 mg/L (96 h); Daphnia EC50 42.4 mg/L (48 h). |
| <b>Persistence and degradability</b> | No mixture-specific data available.                                                                                                                                                        |
| <b>Bioaccumulative potential</b>     | No mixture-specific data available. Significant bioaccumulation is not expected based on available information.                                                                            |
| <b>Mobility in soil</b>              | No data available.                                                                                                                                                                         |

|                              |                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Other adverse effects</b> | Avoid uncontrolled release to the environment. Guanidinium thiocyanate reference data include a fish NOEC of 25 mg/L. |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|

## SECTION 13. DISPOSAL CONSIDERATIONS

|                                |                                                                                                                                                                       |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste treatment methods</b> | Dispose of contents and container as hazardous chemical waste through a licensed waste-management provider in accordance with federal, state, and local requirements. |
| <b>Special precautions</b>     | Do not mix liquid waste containing this product with acids, bleach, or strong oxidizing agents. Do not discharge concentrated product to drains or the environment.   |
| <b>Contaminated packaging</b>  | Dispose of as unused product unless adequately decontaminated by a validated compatible procedure. Do not reuse empty containers.                                     |

## SECTION 14. TRANSPORT INFORMATION

|                            |                                                                                                                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOT (49 CFR)</b>        | UN 1760, Corrosive liquid, n.o.s. (guanidinium thiocyanate), Class 8, Packing Group III.                                                                                                                                                                               |
| <b>IATA-DGR</b>            | UN 1760, Corrosive liquid, n.o.s. (guanidinium thiocyanate), Class 8, Packing Group III.                                                                                                                                                                               |
| <b>IMDG Code</b>           | UN 1760, CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate), Class 8, Packing Group III; marine pollutant: no.                                                                                                                                                         |
| <b>Special precautions</b> | Transport classification is based on analogous aqueous guanidinium-thiocyanate mixtures. Package-size, limited-quantity, and mode-specific provisions may apply. Verify the actual formulation, package, and current transport regulations before commercial shipment. |

## SECTION 15. REGULATORY INFORMATION

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA Hazard Communication</b> | Hazardous chemical under 29 CFR 1910.1200 based on the draft classification in Section 2.                                          |
| <b>CERCLA</b>                    | No component with a reportable quantity is known to be present based on available reference data.                                  |
| <b>SARA 302/304</b>              | No extremely hazardous substance with an applicable threshold planning or reportable quantity is known to be present.              |
| <b>SARA 311/312</b>              | Acute toxicity; skin corrosion or irritation; serious eye damage or eye irritation.                                                |
| <b>SARA 313</b>                  | No listed toxic chemical is known to exceed the reporting threshold based on available reference data.                             |
| <b>TSCA</b>                      | Ingredients are expected to be listed on, or exempt from, the TSCA Chemical Substance Inventory. Verify before final release.      |
| <b>California Proposition 65</b> | No listed chemical is known to be present based on the information supplied. Verify against the current list before final release. |

## SECTION 16. OTHER INFORMATION

|                            |                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Revision date</b>       | 07/24/2026                                                                                                                                                                                                                                                                                          |
| <b>Version</b>             | 3.0                                                                                                                                                                                                                                                                                                 |
| <b>Preparation status</b>  | Draft for regulatory review. Company, email, and emergency contact information are included. Final release requires qualified regulatory review and confirmation of the finished-mixture properties.                                                                                                |
| <b>Classification note</b> | The classification and statements in this draft are based on information supplied by the product developer, the maximum disclosed concentration range, and analogous reference SDSs. No independent physical, toxicological, ecological, or transport testing of the finished mixture was provided. |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abbreviations | ACGIH: American Conference of Governmental Industrial Hygienists; DOT: U.S. Department of Transportation; GHS: Globally Harmonized System; IARC: International Agency for Research on Cancer; IATA: International Air Transport Association; IMDG: International Maritime Dangerous Goods; NTP: National Toxicology Program; OSHA: Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; SARA: Superfund Amendments and Reauthorization Act; SDS: Safety Data Sheet; STOT: Specific Target Organ Toxicity; TSCA: Toxic Substances Control Act; TLV: Threshold Limit Value. |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Disclaimer:** The information provided in this Safety Data Sheet is believed to be accurate and represents the best information currently available to GM Biosciences, Inc. as of the revision date. The information is intended solely as guidance for the safe handling, use, processing, storage, transportation, disposal, and release of the designated product and is not to be considered a warranty or quality specification. The information relates only to the specific material identified and may not be valid when the material is used in combination with other materials or in any process unless specifically stated. GM Biosciences, Inc. assumes no responsibility for damage, injury, or loss resulting from improper handling, use contrary to recommended procedures, or failure to comply with applicable laws and regulations. Users are responsible for determining the suitability of this information for their particular purposes and for obtaining qualified regulatory review before commercial distribution.

## SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| <b>Product name</b>            | <b>Elution Buffer</b>                                                                        |
| <b>Kit / Catalog number</b>    | DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible) / GM1216, GM1248 |
| <b>Version / Revision date</b> | Version 3.0 / 07/24/2026                                                                     |

## SECTION 1. IDENTIFICATION

|                                         |                                                                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Product identifier</b>               | Elution Buffer                                                                                                           |
| <b>Other means of identification</b>    | Component of DeepCatch™ Flow-Through Short Nucleic Acid Recovery Kit (Lysate Compatible), Cat. No. GM1216, GM1248        |
| <b>Recommended use</b>                  | Laboratory reagent used in recovery and purification of short nucleic acids from lysate-compatible flow-through samples. |
| <b>Restrictions on use</b>              | For research use only. Not for use in diagnostic procedures.                                                             |
| <b>Manufacturer / responsible party</b> | GM Biosciences, Inc.                                                                                                     |
| <b>U.S. address</b>                     | 5350 Partners Ct., Suite C, Frederick, MD 21703, USA                                                                     |
| <b>Telephone</b>                        | 240-595-9177                                                                                                             |
| <b>Email</b>                            | support@gmbiosciences.com                                                                                                |
| <b>Emergency telephone</b>              | 240-595-9177 (normal business hours: 10:00 AM-5:00 PM Eastern Time)                                                      |

## SECTION 2. HAZARD(S) IDENTIFICATION

No GHS  
pictogram

**Not classified as a hazardous substance or mixture under the OSHA Hazard Communication Standard based on the information supplied.**  
No signal word, hazard statement, or mandatory precautionary statement is required.

|                                         |                                                                 |
|-----------------------------------------|-----------------------------------------------------------------|
| <b>Other hazards</b>                    | None known. Standard laboratory precautions should be observed. |
| <b>Hazards not otherwise classified</b> | No applicable information available.                            |

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name                                      | CAS No.        | Concentration (% w/w) | Notes    |
|----------------------------------------------------|----------------|-----------------------|----------|
| No hazardous ingredients required to be disclosed. | Not applicable | Not applicable        | Mixture. |

Note: Concentration is expressed as weight percent unless otherwise stated.

## SECTION 4. FIRST-AID MEASURES

|                       |                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b> | No special measures are expected to be required. Show this SDS to medical personnel if medical advice is sought. |
| <b>Inhalation</b>     | Move to fresh air if discomfort occurs. Seek medical advice if symptoms persist.                                 |

|                                        |                                                                                                                                                                 |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin contact</b>                    | Rinse with water. Remove contaminated clothing. Seek medical advice if irritation occurs.                                                                       |
| <b>Eye contact</b>                     | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical advice if irritation persists. |
| <b>Ingestion</b>                       | Rinse mouth. Do not induce vomiting. Seek medical advice if the person feels unwell.                                                                            |
| <b>Most important symptoms/effects</b> | No significant acute or delayed effects are known under normal conditions of use.                                                                               |
| <b>Immediate medical attention</b>     | Treat symptomatically.                                                                                                                                          |

## SECTION 5. FIRE-FIGHTING MEASURES

|                                       |                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Water spray, foam, dry chemical, or carbon dioxide. Use measures appropriate to the surrounding fire.                            |
| <b>Unsuitable extinguishing media</b> | No specific limitation known.                                                                                                    |
| <b>Specific hazards</b>               | The product is not expected to be flammable. Heating may generate irritating fumes from container or minor organic constituents. |
| <b>Firefighter protection</b>         | Use standard protective equipment and self-contained breathing apparatus when required by the surrounding fire.                  |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | Use normal laboratory PPE. Avoid splashes and unnecessary contact.                             |
| <b>Environmental precautions</b> | No special environmental precautions are expected to be necessary; avoid uncontrolled release. |
| <b>Containment and cleanup</b>   | Absorb with inert material and place in a suitable container. Clean the area with water.       |

## SECTION 7. HANDLING AND STORAGE

|                                      |                                                                                                                                             |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b> | Follow good laboratory practice. Avoid contact with eyes and skin. Do not eat, drink, or smoke while handling.                              |
| <b>Conditions for safe storage</b>   | Store at room temperature. Keep container tightly closed and properly labeled.                                                              |
| <b>Specific end use</b>              | Laboratory reagent for recovery and purification of short nucleic acids from lysate-compatible flow-through samples. For research use only. |

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                                     |                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Occupational exposure limits</b> | Contains no substances with established occupational exposure limits based on the information supplied. |
| <b>Engineering controls</b>         | General laboratory ventilation is adequate under normal conditions of use.                              |
| <b>Eye/face protection</b>          | Safety glasses are recommended.                                                                         |
| <b>Hand protection</b>              | Laboratory gloves are recommended.                                                                      |
| <b>Skin/body protection</b>         | Laboratory coat or other suitable work clothing.                                                        |
| <b>Respiratory protection</b>       | Not normally required.                                                                                  |
| <b>Hygiene measures</b>             | Wash hands after handling and before breaks.                                                            |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                       |        |
|-----------------------|--------|
| <b>Physical state</b> | Liquid |
|-----------------------|--------|

|                                                     |                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------|
| <b>Color</b>                                        | Colorless                                                        |
| <b>Odor</b>                                         | Odorless                                                         |
| <b>Odor threshold</b>                               | No data available.                                               |
| <b>Melting point/freezing point</b>                 | No data available.                                               |
| <b>Initial boiling point/range</b>                  | No data available.                                               |
| <b>Flammability</b>                                 | Not expected to be flammable under normal conditions of use.     |
| <b>Lower/upper explosion or flammability limits</b> | No data available.                                               |
| <b>Flash point</b>                                  | Not applicable or no data available for the aqueous formulation. |
| <b>Auto-ignition temperature</b>                    | No data available.                                               |
| <b>Decomposition temperature</b>                    | No data available.                                               |
| <b>pH</b>                                           | No data available.                                               |
| <b>Kinematic viscosity</b>                          | No data available.                                               |
| <b>Solubility</b>                                   | Miscible in water.                                               |
| <b>Partition coefficient (n-octanol/water)</b>      | No data available.                                               |
| <b>Vapor pressure</b>                               | No data available.                                               |
| <b>Relative vapor density</b>                       | No data available.                                               |
| <b>Relative density</b>                             | No data available.                                               |
| <b>Evaporation rate</b>                             | No data available.                                               |
| <b>Particle characteristics</b>                     | Not applicable to the liquid mixture.                            |

## SECTION 10. STABILITY AND REACTIVITY

|                                           |                                                                                                       |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | No specific reactivity hazard is known.                                                               |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.                                                          |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction is expected under normal use.                                                   |
| <b>Conditions to avoid</b>                | Extreme temperatures and contamination.                                                               |
| <b>Incompatible materials</b>             | Strong oxidizing agents; strong acids and bases may be incompatible with some formulation components. |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are expected under normal storage and use.                        |

## SECTION 11. TOXICOLOGICAL INFORMATION

|                                       |                                                                                                                              |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Likely routes of exposure</b>      | Eye contact, skin contact, ingestion, or inhalation of aerosol.                                                              |
| <b>Acute toxicity</b>                 | Not classified based on available information.                                                                               |
| <b>Skin corrosion/irritation</b>      | Not classified; transient irritation is possible in susceptible individuals.                                                 |
| <b>Serious eye damage/irritation</b>  | Not classified; direct contact may cause temporary discomfort.                                                               |
| <b>Respiratory/skin sensitization</b> | Not classified based on available information.                                                                               |
| <b>Germ cell mutagenicity</b>         | No data available; not classified.                                                                                           |
| <b>Carcinogenicity</b>                | No ingredient at $\geq 0.1\%$ is known to be listed as a carcinogen by IARC, NTP, or OSHA based on the information supplied. |

|                                        |                                                                      |
|----------------------------------------|----------------------------------------------------------------------|
| <b>Reproductive toxicity</b>           | No data available; not classified.                                   |
| <b>STOT - single/repeated exposure</b> | No data available; not classified.                                   |
| <b>Aspiration hazard</b>               | Not classified.                                                      |
| <b>Symptoms</b>                        | No significant symptoms are expected under normal conditions of use. |

## SECTION 12. ECOLOGICAL INFORMATION

|                                      |                                                                   |
|--------------------------------------|-------------------------------------------------------------------|
| <b>Ecotoxicity</b>                   | No product-specific data available.                               |
| <b>Persistence and degradability</b> | No data available.                                                |
| <b>Bioaccumulative potential</b>     | No data available.                                                |
| <b>Mobility in soil</b>              | No data available.                                                |
| <b>Other adverse effects</b>         | No data available. Avoid uncontrolled release to the environment. |

## SECTION 13. DISPOSAL CONSIDERATIONS

|                                |                                                                                                                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste treatment methods</b> | Dispose of contents and container in accordance with federal, state, and local requirements. Small laboratory quantities may be handled according to institutional procedures. |
| <b>Contaminated packaging</b>  | Dispose of as unused product unless adequately cleaned. Do not reuse empty containers for other purposes.                                                                      |

## SECTION 14. TRANSPORT INFORMATION

|                            |                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOT (49 CFR)</b>        | Not regulated as a dangerous good.                                                                                                    |
| <b>IATA-DGR</b>            | Not regulated as a dangerous good.                                                                                                    |
| <b>IMDG Code</b>           | Not regulated as a dangerous good.                                                                                                    |
| <b>Special precautions</b> | Keep containers tightly closed and protected from damage. Final transport classification must be verified before commercial shipment. |

## SECTION 15. REGULATORY INFORMATION

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSHA Hazard Communication</b> | Not classified as hazardous under 29 CFR 1910.1200 based on the information supplied.                                              |
| <b>CERCLA</b>                    | No reportable component is known to be present.                                                                                    |
| <b>SARA 302/304</b>              | No listed extremely hazardous substance is known to be present.                                                                    |
| <b>SARA 311/312</b>              | No SARA hazard category is expected to apply.                                                                                      |
| <b>SARA 313</b>                  | No listed toxic chemical is known to exceed a reporting threshold.                                                                 |
| <b>TSCA</b>                      | Ingredients are expected to be listed on, or exempt from, the TSCA Chemical Substance Inventory. Verify before final release.      |
| <b>California Proposition 65</b> | No listed chemical is known to be present based on the information supplied. Verify against the current list before final release. |

## SECTION 16. OTHER INFORMATION

|                      |            |
|----------------------|------------|
| <b>Revision date</b> | 07/24/2026 |
| <b>Version</b>       | 3.0        |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Preparation status</b>  | Draft for regulatory review. Company, email, and emergency contact information are included. Final release requires qualified regulatory review and confirmation of the finished-mixture properties.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Classification note</b> | The classification and statements in this draft are based on information supplied by the product developer, the maximum disclosed concentration, and analogous reference SDSs. No independent physical, toxicological, or transport testing of the finished mixture was provided.                                                                                                                                                                                                                                                                                                                    |
| <b>Abbreviations</b>       | ACGIH: American Conference of Governmental Industrial Hygienists; DOT: U.S. Department of Transportation; GHS: Globally Harmonized System; IARC: International Agency for Research on Cancer; IATA: International Air Transport Association; IMDG: International Maritime Dangerous Goods; NTP: National Toxicology Program; OSHA: Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; SARA: Superfund Amendments and Reauthorization Act; SDS: Safety Data Sheet; STOT: Specific Target Organ Toxicity; TSCA: Toxic Substances Control Act; TLV: Threshold Limit Value. |

**Disclaimer:** The information provided in this Safety Data Sheet is believed to be accurate and represents the best information currently available to GM Biosciences, Inc. as of the revision date. The information is intended solely as guidance for the safe handling, use, processing, storage, transportation, disposal, and release of the designated product and is not to be considered a warranty or quality specification. The information relates only to the specific material identified and may not be valid when the material is used in combination with other materials or in any process unless specifically stated. GM Biosciences, Inc. assumes no responsibility for damage, injury, or loss resulting from improper handling, use contrary to recommended procedures, or failure to comply with applicable laws and regulations. Users are responsible for determining the suitability of this information for their particular purposes and for obtaining qualified regulatory review before commercial distribution.