Safety Data Sheet

Product Name: StemXVivo Chondrogenic Base Media

Reviewed on: 10 April 2019

1. Identification of Substance:

- **Other means of identification: Catalog Number: CCM005**
- **GHS product identifier:** StemXVivo Chondrogenic Base Media
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**
  R&D Systems Inc.
  614 McKinley Place N.E.
  Minneapolis, MN 55413 USA
  1-800-343-7475
- **Emergency information:** In case of a chemical emergency, spill, fire, or exposure, call R&D Systems at (612) 379-2956 or (800)-343-7475. In Europe call +44(0)1235-529449.

2. Hazard Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/EU-GHS]: Selenious Acid (See concentration below.)**
- **GHS Classification:** Acute toxicity, Oral (Category 3)
  Acute toxicity, Inhalation (Category 3)
  STOT RE 2

- **Signal Word: DANGER**
- **Hazard Statements:** H301: Toxic if swallowed; H331: Toxic if inhaled; May cause damage to organs (liver) through prolonged or repeated exposure.
- **Precautionary Statements:** P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P261: Avoid breathing dust/fumes/gas/mist/vapors/spray. P271: Use only outdoors or in a well-ventilated area. P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
- **Responses:**
  IF SWALLOWED: Immediately call a Poison Center or physician. See specific treatment in this SDS. Rinse mouth.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or physician. See specific treatments in this SDS.
  IF EXPOSED: Get medical attention if you feel unwell.
- **Classification according to EU Directives 67/548/EEC or 1999/45/EC:** T: Toxic. N: Dangerous for the environment.
- **R Phrases:** R23/25: Toxic by inhalation and if swallowed. R33: Danger of cumulative effects. R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **S Phrases:** S1/2: Keep locked up and out of reach of children. S20/21: When using do not eat, drink or smoke. S28: After contact with skin, wash immediately with plenty of soap and water. S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). S60: This material and its container must be disposed of as hazardous waste. S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.
- **Special Hazards: EUH031:** Contact with acids liberates toxic gas.

3. Information on Ingredients:

Description: Selenious Acid Formula: H_2SeO_3 Molecular Weight: 128.97 g/mol

Contains	CAS No.	EC-No.	Index-No.	Content
Selenious Acid	7783-00-8		034-002-00-8	< 0.001%*

***NOT HAZARDOUS AT THIS CONCENTRATION.**

4. First Aid Measures:

- **After Inhalation:** If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
- **After Skin Contact:** Wash off with soap and plenty of water. Take victim immediately to a hospital. Consult a physician.
- **After Eye Contact:** Flush eyes with water as a precaution.
- **After Swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- **Most important symptoms and effects, both acute and delayed:** Acute: Abdominal cramps. Vomiting. Cough, dizziness, Headache. Delayed: contact with skin may cause dermatitis.
- **Indication of any immediate medical attention and special treatment needed:** Consult a physician.

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Water spray, foam, carbon dioxide, dry sand, special powder.
- **Special hazards arising from the substance or mixture:** Hazardous decomposition products formed under fire conditions – Sodium oxides, Selenium/Selenium oxides.
- **Special protective actions for fire-fighters:** Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

- **Personal precautions, protective equipment and emergency procedures:** Wear respiratory protection. Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Environmental precautions**: Keep away from drains. **Discharge into environment must be avoided.**
- **Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation at places where dust is formed.
- **Conditions for safe storage, including incompatibilities:** Store locked up. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not allow to come in contact with acids.

8. Exposure Controls and Personal Protection:

- **Control parameters:**
  Component: Selenious Acid (CAS# 7783-00-8): **USA Occupational Exposure Limits (OSHA):** TWA – 0.2 mg/m^3
  UK EH40 WEL – Workplace Exposure Limits: TWA – 0.1 mg/m^3
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
  Eye/face protection: Face Shield and Safety Glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
  Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
  Body protection: Complete Suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
  Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

- **Appearance:** Liquid
- **Odor:** Odorless
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** Not available
- **Boiling point/Boiling range:** Not available
- **Flash point:** Not available
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not available

Upper/lower flammability or explosive limits: Not available
Vapor density : Not available
Vapor pressure: Not available
Relative density: Not available
Solubility in Water: Soluble
Partition coefficient: noctanol/water: Not available
Auto igniting: Not available
Decomposition temperature: Not available
Viscosity: Not available

10. Stability and Reactivity:

- **Reactivity:** No data available
- **Chemical stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** No data available
- **Incompatible materials:** Strong acids
- **Hazardous decomposition products:** Products formed under fire conditions: Sodium oxides, Selenium/selenium oxides.

11. Toxicological Information:

- **Acute toxicity: Oral LD50:** LD50 Oral – mouse – 16 mg/kg/day, LD50 Oral – rat – 48 mg/kg/day.
- **Inhalation LC50 and Dermal LD50** – No data available.
- **Skin corrosion/irritation:** Redness, pain, blisters and skin burns.
- **Serious eye damage/irritation:** Redness, pain and severe burns.
- **Respiratory or skin sensitization:** Upper respiratory irritation, burning sensation, sore throat, shortness of breath.
- **Germ cell mutagenicity:** No data available.
- **Carcinogenicity:** No data available.
- **Reproductive toxicity:** No data available.
- **Specific target organ toxicity (STOT) -single exposure: Corrosive** to eyes, skin and respiratory tract. Inhalation may cause lung edema.
- **Specific target organ toxicity (STOT) -repeated exposure:** Skin sensitization and liver impairment.
- **Aspiration hazard:** No data available
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Potential Health Effects:** Inhalation: May cause respiratory tract irritation.
  Ingestion: May be fatal if swallowed.
  Skin: May be harmful if absorbed though skin. May cause skin irritation or burns.
  Eyes: May cause eye irritation or burns.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
  Inhalation: May cause respiratory tract irritation.
  Ingestion: May be fatal if swallowed.
  Skin: May be harmful if absorbed though skin. May cause skin irritation or burns.
  Eyes: May cause eye irritation or burns.
- **Signs and Symptoms of Exposure:** Selenious acid and its salts are capable of penetrating the skin and can produce acute poisonings. Causes irritations and burns of the skin. It is highly toxic orally.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
  Short term exposure: Potential immediate effects: hyper salivation, garlic odor of the breath, vomiting, diarrhea, muscle spasms increased blood pressure, pulmonary edema, eye irritation.
  Potential delayed effects: Symptoms of lung edema often do not manifest until a few hours post exposure.

Long term exposure: Potential immediate effects: Not available. **Potential delayed effects:** Not available.

- **Effects of chronic exposure:** marked hepatic necrosis in laboratory experiments.
- **Numerical measures of toxicity:** Not available
- **Other Information:** RTECS: VS7175000

12. Ecological Information:

- **Ecotoxicity:** Toxicity to fish: LC50 – Salvelinus fontinalis (Brook trout) – 36.3 mg/L – 24 hr.
- **Biodegradability and Persistence:** No data available.
- **Bioaccumulative potential:** may occur along the food chain in plants and fish.
- **Mobility in soil:** No data available.
- **Other adverse effects:** Toxic to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13. Disposal Considerations:

- **Disposal methods:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with a afterburner and scrubber. Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** no data available

14. Transport Information:

- **UN Number:** None
- **DOT regulations:** · **Hazard class:** None
- **Land transport ADR/RID (cross-border):** Not regulated.
- **Maritime transport IMDG**: Not regulated.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:** Not regulated.
- **Transport/Additional information:** Not dangerous according to the above specifications.

15. Regulations:

- **US. Toxic Substances Control Act**: On TSCA inventory
  SARA 313 Components: Selenious acid is listed
  SARA 311/312 Hazards: Acute Health Hazard
  CERCLA Reportable Quantity: 10 lbs.
  California Proposition 65: Not listed.

16. Other Information:

- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.