SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200) & WHMIS 2015 Compliant

SECTION 1: Identification

- **Product Name:** VitroView™ LSAB IHC/DAB Kit (Rat IgG) (100 Tests)
- **SKU / Catalog Number:** VB-6019D
- **Manufacturer:** VitroVivo Biotech LLC, 405 E Gude Dr, Suite 214, Rockville, MD 20850, USA
- **Emergency Contact:** Tech Support: 1-301-500-0499 / orders@vitrovivo.com
- **Recommended Use:** Laboratory chemical for research use only. Not for human or animal therapeutic/diagnostic use.

SECTION 2: Hazard(s) Identification

- **GHS Classification:** Germ Cell Mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Skin Irritation (Category 2)
Eye Irritation (Category 2A)
- **Signal Word:** DANGER
- **Hazard Statements:** H341: Suspected of causing genetic defects.
H350: May cause cancer.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
- **Precautionary Statements:** P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P280: Wear protective gloves/clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.
P308+P313: IF exposed or concerned: Get medical advice/attention.

SECTION 3: Composition / Information on Ingredients

The product is a multi-component kit. Hazardous ingredients are detailed below:

Component Name	Volume	Hazard Drivers / Ingredients	CAS Number
RTU Normal Goat Serum	10 mL	Goat Serum; Sodium Azide (<0.1%)	26628-22-8
RTU Biotinylated Anti-Rat Secondary Antibody	10 mL	Ig fraction; Sodium Azide (<0.1%)	26628-22-8

RTU Streptavidin-HRP	10 mL	Streptavidin-HRP; ProClin 300 (<0.1%) [No Sodium Azide]	Various
DAB Stock Solution (40×)	0.75 mL	3,3'-Diaminobenzidine tetrahydrohydrate (1-5%)	868272-85-9
DAB Buffer	30 mL	Proprietary buffer salts; Hydrogen Peroxide (<0.1%)	Mixture
RTU Hematoxylin Solution	10 mL	Hematoxylin (<1%); Acetic Acid (<2%)	517-28-2 / 64-19-7

SECTION 4: First-Aid Measures

- **Inhalation:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **Skin Contact:** Wash off immediately with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation persists.
- **Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes, holding eyelids open. Consult a physician immediately.
- **Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a physician.

SECTION 5: Fire-Fighting Measures

- **Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
- **Specific Hazards:** Thermal decomposition can lead to the release of toxic/irritating gases (carbon oxides, nitrogen oxides, hydrogen chloride).
- **Protective Equipment:** Wear self-contained breathing apparatus (SCBA) and full protective gear for firefighting.

SECTION 6: Accidental Release Measures

- **Personal Precautions:** Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- **Clean-up Methods:** Soak up with inert absorbent material (sand, silica gel, universal binder). Package in designated, closed disposal containers.

SECTION 7: Handling and Storage

- **Handling:** Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapor or mist. Wash thoroughly after handling.
- **Storage:** Keep container tightly closed in a dry, cool, and well-ventilated place. Recommended storage temperature: 2–8°C. Do not freeze.

SECTION 8: Exposure Controls / Personal Protection

- **Exposure Limits:** Sodium Azide: Ceiling limit of 0.29 mg/m³ (ACGIH TLV). Other components contain no substances with established occupational exposure limit values.
- **Engineering Controls:** Handle in accordance with good industrial hygiene and safety practices. Ensure eyewash stations and safety showers are close to the workstation.
- **PPE - Eye/Face:** Tightly fitting safety goggles or face shield (NIOSH US or EN 166 EU).
- **PPE - Skin/Body:** Handle with chemical-resistant gloves (nitrile or latex). Complete suit or laboratory coat protecting against chemicals.
- **PPE - Respiratory:** Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination cartridges.

SECTION 9: Physical and Chemical Properties

- **Appearance:** Clear, colorless to pale-yellow liquids (Serum, Antibody, Streptavidin, Buffer);
Clear, brown/purple liquid (DAB Stock 40×);
Dark purple/red liquid (Hematoxylin).
- **Odor / pH:** Odorless to slight pungent (Hematoxylin); pH varies by component (4.0 - 7.6)
- **Boiling / Flash Point:** ~100 °C / Not applicable
- **Solubility:** Fully miscible in water.

SECTION 10: Stability and Reactivity

- **Reactivity / Stability:** Stable under recommended storage conditions.
- **Incompatibilities:** Strong oxidizing agents, strong acids, metals. Sodium Azide can react with lead/copper to form explosive azides (present at trace levels <0.1% here).
- **Decomposition Products:** Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

SECTION 11: Toxicological Information

- **Acute Toxicity:** No quantitative data available for the kit mixtures.
- **DAB Component Toxicity:** 3,3'-Diaminobenzidine is a known mutagen and suspected human carcinogen (IARC/NTP). Toxic if swallowed or absorbed through skin.
- **Skin / Eye Damage:** Causes skin irritation and serious eye irritation.
- **Carcinogenicity:** DAB Stock Solution contains 3,3'-Diaminobenzidine, which is classified as a suspected human carcinogen.

SECTION 12: Ecological Information

- **Ecotoxicity:** No specific data available. Avoid discharge into the environment. Trace sodium azide is toxic to aquatic life.

SECTION 13: Disposal Considerations

- **Waste Treatment:** Dispose of in accordance with local, state, and federal environmental regulations. DAB and Hematoxylin solutions should be treated as hazardous chemical waste. Do not dispose of via wastewater systems.

SECTION 14: Transport Information

- **DOT / IMDG / IATA:** Not regulated as dangerous goods for transport (quantities are below dangerous components' limited/excepted quantity thresholds).

SECTION 15: Regulatory Information

- **SARA 302/313:** Sodium Azide is present below reportable de minimis levels (<0.1%).
- **California Prop 65:** This product contains 3,3'-Diaminobenzidine, a chemical known to the State of California to cause cancer.

SECTION 16: Other Information

- **Preparation Date:** September 19, 2026
- **Disclaimer:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. This is for informational purposes only. For medical advice or diagnosis, consult a professional.