

**HYCOR BIOMEDICAL INC.  
MATERIAL SAFETY DATA SHEET**

**1. PRODUCT IDENTIFICATION**

Commercial Product: KOVA -TROL URINE CONTROLS-ABNORMAL

Name: KOVA -TROL High Abnormal, Low Abnormal

List Number(s): 87325, 87326, 87128, 87329, 87130, 87332, 87333, 87334, 87200, 87332E, 87333E, 87334E, 87128E, 87130E, 87325E, 87326E, 87329E

Manufacture Company:

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**2. CHEMICAL CHARACTERIZATION / INFORMATION ON HAZARDOUS INGREDIENTS**

Composition: *Bottle contains 0.002% potassium ferricyanide, 0.0005% potassium cyanide.*

*Contains human blood. Human blood has been tested for the presence of antibodies to Human Immunodeficiency Virus (HIV 1 & 2), Hepatitis B Surface Antigen (HBsAg) and HCV, and found to be negative.*

See EEC directive 67/548/EEC and amendments.

Substance	%w/w	Health Class	CAS No	EINECS No	ANNEX 1
Potassium ferricyanide	0.002	Xi, R: 32-36/37/38 S: 26-36	13746-66-2	2373233	
Potassium cyanide	0.0005	T+ N, R: 26/27/28 32 50/53 S: 7-28-29-45-60-61	151-50-8	2057923	

See section 16 for spelling of R and S phrases.

**3. HAZARDS IDENTIFICATION**

Classification: *Product is chemically classified as a non-dangerous preparation according to OSHA CFR 1910.1200 and EC directives (1999/45/CE).*

*However, avoid repeated exposures and/or ingestion of preparation. Toxic if swallowed, even if its concentration is below the allowed limits. Toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.*

*Controls contain human blood and are potentially infectious. Handle controls as a biohazardous material.*

**4. FIRST AID MEASURES**

Eye Contact: *Promptly wash eyes with water for at least 15 minutes. Seek medical advice.*

Skin Contact: *Wash thoroughly with soap and water. Re-wash with a detergent that contains anti-microbial agents.*

Ingestion: *Flush mouth with water, without swallowing. Get medical attention.*

Direction for Physician: *Symptomatic treatment.*

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## 5. FIRE and EXPLOSION HAZARD DATA

Extinguishing Media: *water, dry chemicals, foam or carbon dioxide. Do not use carbon dioxide extinguisher on this material.*

Special Fire Fighting Procedures: *In case of fire, wear a self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Wear a respirator.*

Unusual Fire Fighting Procedures: *Keep away from heat, sparks and flames.*

Thermal Decomposition: *Dangerous decomposition is not anticipated.*

## 6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken After Spillage: *Wear appropriate personal protective equipment (rubber gloves and protective clothing). Avoid any direct contact, especially in case of injured skin. Dilute liquids with water and absorb with an inert material (vermiculite, dry sand, earth) and place in a biohazardous waste container. Wash contaminated area with a germicide product. Disinfect after handling.*

Absorbant Material: *Do not use combustible materials, such as sawdust.*

Waste Disposal Method: *Consult a specialist for disposal of the spilled substance.*

## 7. HANDLING AND STORAGE

Handling: *Keep in its original container, tightly closed. Protect from physical damage. Open and handle container carefully. Wear rubber gloves and protective clothing. Do not swallow. Avoid contact with eyes. Avoid a prolonged and excessive contact with skin. Handle as potentially biohazardous material. Avoid contact with injured skin.*

Storage: *Store between +2°C (35,6°F) and +8°C (46,4°F).*

Other Precautions: *Do not store near heat or ignition sources. Avoid contact with acid.*

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product TLV: *Not known.*

Respiratory Protection: *None*

Eye Protection: *Protective chemical safety goggles where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.*

Hand Protection: *One-way gloves. Wash hands before breaks and disinfect them at end of the work.*

Other Protective Equipment: *Protective Clothing*

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: *Lyophilized powder*Color: *yellow after reconstitution*Odor: *No pronounced odor*pH Value: *7- 9*Boiling Point: *Approximately 100°C*

## 10. STABILITY AND REACTIVITY

Stable under ordinary conditions of use and storage (2 - 8°C; 35,6 - 46,4°F).

Hazardous Decomposition Products: *carbon monoxide, carbon dioxide, nitrogen oxides*Hazardous Polymerization: *will not occur.*Incompatibilities: *sensitive to heat, strong acids, oxidizing agents, bases and heavy metals*Conditions to avoid: *heat-sensitive*

## 11. TOXICOLOGICAL INFORMATION

Referred to the product:  
 LD50 Oral: *Not known*  
 LD50 Skin: *Not known*  
 LD50 Inhalation: *Not known*  
 Irritation, skin: *Not known*  
 Irritation, eyes: *Not known*

Referred to potassium ferricyanide (in pure form)  
 LD50 Oral (mouse): 2970 mg/kg

Referred to potassium cyanide (in pure form):  
 LDLO Oral (human): 2.857 mg/kg  
 LD50 Oral (rat): 5 mg/kg  
 LD50 Oral (mouse): 8.5 mg/kg  
 LD50 Oral (rabbit): 5 mg/kg

Product Toxicological Information: *The toxicological properties have not been determined. May be harmful by ingestion or prolonged contact with skin. Toxicological properties have not been thoroughly investigated.*

## 12. ECOLOGICAL INFORMATION

*Use product according to good laboratory practices and avoid releasing to the environment.*

Ecotoxicity (aquatic toxicity): *Product contains 0.0005% potassium cyanide. Potassium cyanide concentration is below EC directives allowed limits (0,25%, w/w). So, product is classified as not harmful to the aquatic environment, according to the legislation in force (1999/45/CE and amendments). However, because potassium cyanide LC<sub>50</sub>/96H values for fish are less than 0.45 mg/L, do not empty product into water or drains.*

Mobility: *Product is not expected either to selectively partition or to be absorbed to soil and/or sediments.*

Persistence and Degradability: *When released into the soil or into water, this product is not expected to persist in the environment.*

Bioaccumulative potential: *The product is not expected to significantly bioaccumulate.*

Other adverse effects: *None*

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### 13. DISPOSAL CONSIDERATIONS

Observe all Federal, State and Local laws concerning Health and Pollution.

### 14. TRANSPORT INFORMATION

Transport in accordance with national and international regulations.

Is not subject to current regulations for transportation of hazardous goods (eg. GGUS/ADR, GGUE/RID, IMDG, IATA/ICAD).

Must be transported at controlled temperature (2 - 8 °C; 35.6 - 46.4 °F). Do not compromise container integrity.

### 15. REGULATORY INFORMATION

Label information:

Hazard Symbol: *none*

Indication of danger: *none*

Risk phrases: *none*

### 16. OTHER INFORMATION

The information herein is believed to be correct as of the date hereof but is provided without warranty of any kind. The recipient of our products is responsible for observing any laws and guidelines applicable.

Use the product according with box insert and MSDS information. Please, read the instructions for use and warning.

Legend:

**R phrases:**

R 26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.

R 32: Contact with acids liberates very toxic gas.

R 36/37/38: Irritation to eyes, respiratory system and skin.

R 50/53: Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**S phrases:**

S 7: Keep container tightly closed.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 28: After contact with skin, wash immediately with plenty of water.

S 29: Do not empty into drains.

S 36: Wear suitable protective clothing.

S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60: This material and its container must be disposed of as a hazardous waste.

S 61: Avoid release to the environment. Refer to special instructions/safety data sheets.