1. IDENTIFICATION

Product Name  IVERHART™ PLUS (ivermectin/pyrantel) Flavored Chewables

Recommended use of the chemical and restrictions on use
Identified uses  Chewable for worm control in dogs
Restrictions on Use  Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Company Identification  Virbac AH, Inc.
P.O. Box 162059
Fort Worth, Texas 76161

Customer Information Number  (800) 338-3659

Emergency Telephone Number  (800) 424-9300
Chemtrec Number  Human Toll-free 833-224-2009
Other Emergency Number:  Animal Toll-free 833-224-2013

Issue Date  March 10, 2020
Supersedes Date  February 13, 2017

Safety Data Sheet prepared in accordance with OSHA’s Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARDS IDENTIFICATION

Hazard Classification
Acute Hazards to the Aquatic Environment – Category 1 (This classification not adopted by OSHA.)

Label Elements
Hazard Symbols

Signal Word: Warning

Hazard Statements
Very toxic to aquatic life.

Precautionary Statements
Prevention
Avoid release to the environment.
Response
None
Storage
None
Disposal
Dispose of contents/container in accordance with local and national regulations.
2. HAZARDS IDENTIFICATION

Other Hazards
This product may cause a reaction in individuals with pork allergies.

Specific Concentration Limits
The values listed below represent the percentages of ingredients of unknown toxicity.

<table>
<thead>
<tr>
<th></th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>10 - 20%</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>50 - 60%</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>70 - 80%</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms:
This product is a mixture.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrantel Pamoate</td>
<td>22204-24-6</td>
<td>45 - 55%</td>
</tr>
<tr>
<td>Pork Liver Powder</td>
<td>NA</td>
<td>10 - 20%</td>
</tr>
<tr>
<td>Ivermectin</td>
<td>70288-86-7</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eyes
Not an expected route of entry. If tablet contacts eye, flush thoroughly with water. If pain or irritation persists contact a physician.

Skin
If irritation develops wash skin thoroughly with soap and water. Obtain medical attention if redness or soreness persists.

Ingestion
Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation
Remove person to fresh air. Seek medical attention if symptoms persist.

Most important symptoms/effects, acute and delayed
Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Notes to Physicians
Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Extinguishing Media
Use extinguishing media appropriate for surrounding materials.
5. FIRE - FIGHTING MEASURES

Unusual Fire and Explosion Hazards
Can release hazardous vapors during a fire.

Protective Equipment for Fire-Fighting
Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
No specific measures recommended.

Environmental Precautions
Prevent the material from entering drains or watercourses.

Methods and materials for containment and cleaning up
Pick up and dispose of in accordance with all applicable local and national regulations. Prevent the material from entering drains or watercourses.

7. HANDLING AND STORAGE

Precautions for safe handling
Wear appropriate protective clothing.

Conditions for safe storage
Store in original container at temperatures between 59°F and 86°F (15°C - 30°C). Store away from children and pets.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure limits are listed below, if they exist.

Appropriate engineering controls
No specific measures necessary. Good general room ventilation is expected to be adequate to control airborne levels.

Individual protection measures
Respiratory Protection
Not required under normal conditions of use.
Skin Protection
Not required under normal conditions of use.
Eye/Face Protection
Not required under normal conditions of use.
Body Protection
Normal work wear
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>Tan</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Range/Point (°C/F)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point (°C/F)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (PMCC) (°C/F)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate (BuAc=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Data is not available.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Hazardous reactions will not occur.

Conditions to Avoid
Heat - high temperatures

Incompatible Materials
None known.

Hazardous Decomposition Products
Oxides of carbon – nitrogen oxides – sulfur oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Ivermectin:
Oral LD50 (rat) 50 mg/kg
Oral LD50 (human) >15 mg/kg
Dermal LD50 406 mg/kg (rabbit)
11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Pyrantel Pamoate
Oral LD50 (rat) >2000 mg/kg

Specific Target Organ Toxicity (STOT) – single exposure
Ivermectin: At high doses in humans and animals vomiting, tachycardia, blood pressure fluctuation, CNS effects (somnolence, ataxia) and visual disturbances have been observed. Higher doses may cause death due to respiratory depression.

Specific Target Organ Toxicity (STOT) – repeat exposure
No relevant studies identified.

Serious Eye damage/Irritation
Ivermectin: Slightly irritating to eyes in rabbit tests.

Skin Corrosion/Irritation
Ivermectin: Non-irritating in animal studies.

Respiratory or Skin Sensitization
This product may cause a reaction in individuals with pork allergies.
Ivermectin: Hypersensitivity reactions have been reported in humans.

Carcinogenicity
Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity
Ivermectin: Negative in the AMES Assay, and in a mouse lymphoma mutation assay. In addition, it did not induce unscheduled DNA synthesis in a human fibroblast cell culture, suggesting that it does not damage DNA.

Reproductive Toxicity
Pyrantel Pamoate: No evidence of adverse effects on fertility, reproduction or lactation was observed in rats at oral doses of 250 mg/kg/day. No maternal toxicity, embryo or fetotoxicity were observed in perinatal and postnatal toxicity study.
Ivermectin: Teratogenic in rats, rabbit and mice at or near materno-toxic dose levels. The abnormalities are limited mainly to cleft palate.

Aspiration Hazard
Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Ivermectin
LC50 (Trout) 0.003mg/l 96hr
LC50 (Daphnia magna) 0.000025mg/l 48hr

Mobility in soil
Ivermectin: Ivermectin is metabolized in the soil. Water solubility is limited and it binds to soil very tightly. It does not bioconcentrate in fish and is not taken up from soil into plants.
12. ECOLOGICAL INFORMATION

Persistence/Degradability
Ivermectin: Slow biodegradation. Photodegrades rapidly.

Bioaccumulative Potential
No relevant studies identified.

Other adverse effects
No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

Contact supplier for transport information.

15. REGULATORY INFORMATION

United States TSCA Inventory
This product is excluded from the US EPA Toxic Substance Control Act and is regulated under the Food, Drug and Cosmetic Act.

SARA Title III Sect. 311/312 Categorization
None

SARA Title III Sect. 313
The following chemicals are listed in Section 313 at or above de minimis concentrations: None

16. OTHER INFORMATION

Legend
ACGIH: American Conference of Governmental Industrial Hygienists
CAS#: Chemical Abstracts Service Number
FIFRA: Federal Insecticide, Fungicide and Rodenticide Act
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
N/A: Denotes no applicable information found or available
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act
16. OTHER INFORMATION

Revision Date: March 10, 2020
Replaces: February 13, 2017
Changes made: Update to emergency numbers and section 15.

Information Source and References
This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

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