1. Identification

Product identifier: FLYNEXX™ GRANULES 2% Cyromazine

Other means of identification:
- Synonyms: Flynexx Granules Product ID Number 10000
- Recommended use: Insecticide
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:
Piedmont Animal Health

Address:
204 Muirs Chapel Road, Suite 200
Greensboro, NC 27410

Telephone:
1-336-544-0320

SDS E-mail:
rpetzold@piedmontpharma.com

SDS telephone:
1-336-544-0320

Emergency Telephone Numbers:
- CHEMTREC 24 hours per day and 365 days per year
- Human or Animal Exposure Reporting: 1-800-424-9300
- Transportation Emergency Telephone: CHEMTREC 1-800-424-9300 (Outside U.S. 1-703-527-3887)

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards: Not classified.

OSHA defined hazards: Combustible dust

Label elements:
- Hazard symbol: None.
- Signal word: Caution
- Hazard statement: May form combustible dust concentrations in air.

Precautionary statement:
- Prevention: Not available.
- Response: Not available.
- Storage: Store in cool dry place, avoid direct sunlight and temperatures exceeding 95 degrees F (35 degrees C).
- Disposal: Pesticide disposal-unused material at approved disposal site.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td></td>
<td>57-13-6</td>
<td></td>
</tr>
<tr>
<td>Cyromazine</td>
<td></td>
<td>66215-27-8</td>
<td>2</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>97</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact
Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Use water spray to cool unopened containers.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
This product is not flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Do not taste or swallow. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Keep at temperature not exceeding 35 °C. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Protect from freezing and direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea (CAS 57-13-6)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total particulate.</td>
</tr>
<tr>
<td>Biological limit values</td>
<td>No biological exposure limits noted for the ingredient(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure guidelines</td>
<td>Cyromazine: 0.14 mg/m3 8 hour TWA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Material name: FLYNEXX™ Granules
Version #: 02  Revision date: 6-01-2017  Issue date: 09-20-2016
Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection
Safety glasses with side shields recommended.

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.

Thermal hazards
Not available.

General hygiene considerations
Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Granular.

Physical state
Solid.

Form
Solid.

Color
White to beige.

Odor
Slight Urea.

Odor threshold
Not available.

pH
7.5 - 9.5 (1% aqueous solution)

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
Not available.

Evaporation rate
Not available.

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Relative density
0.6 - 0.8 g/cm3

Solubility(ies)

Solubility (water)
Soluble.

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
Not available.

Other information

Explosive properties
Not explosive

Oxidizing properties
No oxidizing properties.

10. Stability and reactivity

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
Material is stable under normal conditions.
No dangerous reaction known under conditions of normal use.

Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.

Strong oxidizing agents.

No hazardous decomposition products are known.

### 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLYNEXX™ GRANULES</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 2 mg/l, 4 hours</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Test Results</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyromazine (CAS 66215-27-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 3100 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 2720 mg/m3, 4 Hours 50% powdered formulation</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rabbit</td>
<td>1467 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>3387 mg/kg</td>
</tr>
<tr>
<td>Urea (CAS 57-13-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 21 g/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 770 mg/m3, 4 hours (mortality)</td>
</tr>
<tr>
<td>LC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>8471 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Corrosivity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyromazine</td>
<td></td>
<td>Result: Slight irritant. Species: Rabbit</td>
</tr>
<tr>
<td><strong>Irritation Corrosion - Skin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLYNEXX™ GRANULES</td>
<td></td>
<td>Result: No skin irritation. Species: Rabbit</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Eye</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLYNEXX™ GRANULES</td>
<td></td>
<td>Result: Mild eye irritation. Species: Rabbit</td>
</tr>
<tr>
<td><strong>Eye Contact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyromazine</td>
<td></td>
<td>Result: Slight irritant. Species: Rabbit</td>
</tr>
</tbody>
</table>
Respiratory or skin sensitization

Respiratory sensitization
Based on available data, the classification criteria are not met.

Skin sensitization
This product is not expected to cause skin sensitization.

Sensitization
Cyromazine
Result: Not a contact sensitizer
Species: Guinea pig

Skin sensitization
FLYNEXX™ GRANULES
Result: Not a skin sensitizer.
Species: Guinea pig

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Mutagenicity
Cyromazine
Result: No evidence of mutagenic effects

Carcinogenicity
Animal testing did not show any carcinogenic effects. (Cyromazine)
Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens
Not available.

Reproductive toxicity
Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

12. Ecological information

Ecotoxicity
Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyromazine (CAS 66215-27-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mallard Duck (Anas platyrhynchos)</td>
<td>2510 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Quail (Japanese Quail)</td>
<td>&gt; 6000 mg/kg, 7 days</td>
</tr>
<tr>
<td>Other</td>
<td>Bobwhite quail (Colinus virginianus)</td>
<td>1785 mg/kg</td>
</tr>
<tr>
<td>Aquatic</td>
<td>Crustacea</td>
<td>LC50</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>Crustacea</td>
<td>NOEC</td>
</tr>
<tr>
<td>Terrestrial</td>
<td>Other</td>
<td>LC50</td>
</tr>
<tr>
<td>Urea (CAS 57-13-6)</td>
<td>Aquatic</td>
<td>Acute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential

Material name: FLYNEXX™ Granules
Version #: 02 Revision date: 6-01-2017 Issue date: 09-20-2016
Partition coefficient n-octanol / water (log Kow)

Cyromazine 0.96
Urea -2.11

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.
US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 09-20-2016
Revision date 06-01-2017
Version # 02

List of abbreviations

TWA: Time Weighted Average

Disclaimer
As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:
Piedmont Animal Health
1-336-544-0320

Revision Information

Product and Company Identification: Synonyms
Hazard(s) identification: Response
Composition / Information on Ingredients: Disclosure Overrides
Exposure controls/personal protection: Other
Toxicological Information: Toxicological Property Data
Toxicological information: Mutagenicity
Toxicological information: Reproductivity
Toxicological information: Respiratory sensitization
Ecological information: Ecotoxicity
GHS: Classification