1. Identification

Product identifier: Melengestrol Acetate Liquid Premix

Other means of identification:
- Synonyms: MGA 500 Liquid Premix
- Recommended use: Veterinary product used as contraceptive agent
- Recommended restrictions: Not for human use

Manufacturer/Importer/Supplier/Distributor information:
- Company Name (US): Zoetis Inc.
  10 Sylvan Way
  Parsippany, New Jersey 07054 (USA)
  1-866-531-8896
- Rocky Mountain Poison and Drug Center
  1-888-963-8471
- Product Support/Technical Services
  CHEMTREC (24 hours): 1-800-424-9300
- Emergency telephone numbers
  International CHEMTREC (24 hours): +1-703-527-3887
- Company Name (EU): Zoetis Belgium S.A.
  Rue Laid Burniat 1
  1348 Louvain-la-Neuve
  Belgium
  Telephone: +32 10 808080
- Emergency telephone number
  International CHEMTREC (24 hours): +1-703-527-3887
- Contact E-Mail: VMIPSrecords@zoetis.com

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards:
- Reproductive toxicity: Category 2

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements:

Signal word: Warning

Hazard statement: Suspected of damaging fertility or the unborn child.

Precautionary statement:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

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>Propylene glycol</td>
<td></td>
<td>57-55-6</td>
<td>&gt; 99</td>
</tr>
<tr>
<td>Melengestrol acetate</td>
<td></td>
<td>2919-66-6</td>
<td>0.11</td>
</tr>
</tbody>
</table>

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact: Rinse with water. Get medical attention if irritation develops and persists.
Ingestion: Rinse mouth. Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:
Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

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:
IF exposed or concerned: Get medical advice/attention. 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: Alcohol resistant foam. 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:
Move containers from fire area if you can do so without risk.

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

General fire hazards:
Fine particles (such as mists) may fuel fires/explosions.

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. 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:
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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

7. Handling and storage

Precautions for safe handling:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities:
Storage temperature: between 4°C (39°F) and 25°C (77°F). Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
8. Exposure controls/personal protection

Occupational exposure limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Zoetis Components | Value
--- | ---
Melengestrol acetate (CAS 2919-66-6) | TWA 50 µg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides Components | Value | Form
--- | --- | ---
Propylene glycol (CAS 57-55-6) | TWA 10 mg/m3 | Aerosol.

Biological limit values
No biological exposure limits noted for the ingredient(s).

Control banding approach
Melengesterol: OEB 3 (control exposure to the range of 10ug/m3 to < 100ug/m3)

Appropriate engineering controls
Good general ventilation 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
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Use of an impervious apron is recommended.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Not applicable.

General hygiene considerations
Observe any medical surveillance requirements. 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
Viscous liquid

Physical state
Liquid.

Form
Liquid.

Color
Colorless

Odor
Odorless.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
103.0

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits
Explosive limit - lower (%)
Not available.

Explosive limit - lower (%) temperature
2.6

Explosive limit - upper (%)
Not available.

Explosive limit - upper (%) temperature
12.5

Vapor pressure
Not available.

Vapor density
Not available.
Relative density Not available.
Solubility(ies)
   Solubility (water) Not available.
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.
   Flammability class Combustible IIIB estimated
   Oxidizing properties Not oxidizing.

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.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Contact with incompatible materials. Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible materials Strong oxidizing agents.
Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
   Inhalation Prolonged inhalation may be harmful.
   Skin contact Prolonged skin contact may cause temporary irritation.
     Propylene glycol Species: Rabbit Severity: Mild
   Eye contact Direct contact with eyes may cause temporary irritation.
     Propylene glycol Species: Rabbit Severity: Mild
   Ingestion May cause discomfort if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.
Information on toxicological effects
Acute toxicity Not acutely toxic
Components Test Results
   Melengestrol acetate (CAS 2919-66-6)
      Acute
      Dermal
         LD50 Rat > 22 mg/kg
      Intraperitoneal
         LD50 Mouse > 2500 mg/kg
      Oral
         LD50 Rat > 8000 mg/kg
      Subcutaneous
         LD50 Mouse > 5000 mg/kg
Components | Species | Test Results
--- | --- | ---
**Chronic**
**Oral**
LOAEL | Monkey | 1.5 µg/kg/day, 28 days Female reproductive system
Mouse | Mouse | 0.5 mg/kg/day, 2 years Tumors, Female reproductive system
Rat | Rat | 0.015 mg/kg/day, 90 days Female reproductive system
NOAEL | Dog | 0.002 mg/kg/day, 2 years Not carcinogenic
Monkey | Monkey | 5 µg/kg/day, 3 months

**Propylene glycol (CAS 57-55-6)**

**Acute**
**Dermal**
LD50 | Rabbit | 20800 mg/kg
**Oral**
LD50 | Mouse | 24900 mg/kg
Rat | 22000 mg/kg

**Skin corrosion/irritation**
Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**
Direct contact with eyes may cause temporary irritation.

**Eye Contact**
Propylene glycol | Species: Rabbit
Severity: Mild

**Respiratory or skin sensitization**

**Respiratory sensitization**
Not a respiratory sensitizer.

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

**Germ cell mutagenicity**
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Mutagenicity**
Melengestrol acetate | Direct DNA Interaction
Result: Negative

In Vivo Micronucleus
Result: Negative

Mammalian Cell Mutagenicity
Result: Negative
Species: HGPRT

Unscheduled DNA Synthesis
Result: Negative

**Carcinogenicity**
Not listed as a carcinogen by IARC, NTP or US OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**
Not listed.

Not listed.

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

**Reproductive toxicity**
Suspected of damaging fertility or the unborn child.
Developmental effects
Melengestrol acetate
> 0.8 mg/kg/day Embryo / Fetal Development, Fetotoxicity
Teratogenic
Species: Rabbit
Organ: Oral
Result: LOAEL
0.004 mg/kg/day Fertility & Embryonic Development
(Male/Female), Fertility Fetotoxicity
Result: LOAEL
Species: Dog
Organ: Oral
Result: LOAEL
Species: Rat
Organ: Subcutaneous

Reproductivity
Melengestrol acetate
> 60 ug/kg/day Reproductive & Fertility, Fertility
Result: LOAEL
Species: Rat
Organ: Oral

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

Further information
None known.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melengestrol acetate (CAS 2919-66-6)</td>
<td>Carassius auratus (Goldfish)</td>
<td>&gt; 1 mg/L, 21 Days</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>&gt; 2 mg/L, 48 Hours</td>
</tr>
<tr>
<td>Propylene glycol (CAS 57-55-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>EC50</td>
<td>&gt; 10000 mg/l, 48 hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50</td>
<td>710 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential
See below

Partition coefficient n-octanol / water (log Kow)
Melengestrol acetate
4.21, 7.4 pH

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: Avoid release to the environment. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied.

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 established.

15. Regulatory information

US federal regulations: This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA): One or more components of the mixture are not on the TSCA 8(b) inventory or are designated “inactive”.


SARA 304 Emergency release notification: Not regulated.


SARA 302 Extremely hazardous substance: Yes

SARA 311/312 Hazardous chemical: Reproductive toxicity

 Classified hazard categories: Yes

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.

US state regulations

California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

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>Australia</td>
<td>Australian Inventory of Industrial Chemicals (AICIS)</td>
<td>No</td>
</tr>
<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>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</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: 12-17-2014
Revision date: 05-26-2022
Version #: 04

List of abbreviations
AICIS: Australian Inventory of Industrial Chemicals.

Disclaimer
Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information
This document has undergone significant changes and should be reviewed in its entirety.