1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Progesterone Formulation (Veterinary)

Manufacturer or supplier's details

<table>
<thead>
<tr>
<th>Company</th>
<th>MSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Briahnager - Off Pune Nagar Road, Wagholi - Pune - India 412 207</td>
</tr>
<tr>
<td>Telephone</td>
<td>908-740-4000</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>1-908-423-6000</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:EHSDATASTEWARD@msd.com">EHSDATASTEWARD@msd.com</a></td>
</tr>
<tr>
<td>Telefax</td>
<td>908-735-1496</td>
</tr>
</tbody>
</table>

Recommended use of the chemical and restrictions on use

Recommended use: Veterinary product

2. HAZARDS IDENTIFICATION

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

Classification
Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

GHS Classification

| Carcinogenicity (Inhalation) | Category 1A |
| Carcinogenicity               | Category 2   |
| Reproductive toxicity         | Category 1A  |
| Effects on or via lactation   |               |
| Specific target organ toxicity - repeated exposure (Inhalation) | Category 1 (Lungs) |

GHS label elements

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td>Danger</td>
</tr>
<tr>
<td>Hazard statements</td>
<td>H350i May cause cancer by inhalation. H351 Suspected of causing cancer.</td>
</tr>
</tbody>
</table>
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Precautionary statements:

**Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P263 Avoid contact during pregnancy and while nursing.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Storage:**
P405 Store locked up.

**Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

**Additional Labelling**
The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 6.609 %

**Other hazards which do not result in classification**
None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

**Components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
<tr>
<td>Progesterone</td>
<td>57-83-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

**If inhaled:** If inhaled, remove to fresh air.
Get medical attention.

**In case of skin contact:** In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact:
Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed:
If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed:
May cause cancer by inhalation.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause harm to breast-fed children.
Causes damage to organs through prolonged or repeated exposure if inhaled.

Protection of first-aiders:
First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician:
Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES

Suitable extinguishing media:
Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media:
None known.

Specific hazards during firefighting:
Exposure to combustion products may be a hazard to health.

Hazardous combustion products:
Carbon oxides
Silicon oxides

Specific extinguishing methods:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for firefighters:
In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions:
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for:
Sweep up or vacuum up spillage and collect in suitable con-
containment and cleaning up container for disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

7. HANDLING AND STORAGE

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation: Use with local exhaust ventilation.
Advice on safe handling: Do not get on skin or clothing. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage: Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.

Materials to avoid: Do not store with the following product types: Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>TWA (Total dust)</td>
<td>30 mg/m3 / % quartz+3</td>
<td>IN OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable dust)</td>
<td>10 mg/m3 / % quartz+2</td>
<td>IN OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>10,600 mppcm / % Quartz + 10</td>
<td>IN OEL</td>
</tr>
</tbody>
</table>

Further information: mppcm : Million particles per cubic metre of air, based on impinger samples counted by light field techniques

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA (Respirable fraction)</td>
<td>TWA</td>
<td>0.025 mg/m3 (Silica)</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>Progesterone</td>
<td>57-83-0</td>
<td>TWA</td>
<td>5 μg/m3 (OEB 4)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>50 μg/100 cm²</td>
<td>Internal</td>
</tr>
</tbody>
</table>

Engineering measures: Minimize workplace exposure concentrations.
Use with local exhaust ventilation.

**Personal protective equipment**

**Respiratory protection** : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

**Filter type** : Particulates type

**Hand protection**

**Material** : Chemical-resistant gloves

**Remarks** : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

**Eye protection** : Wear the following personal protective equipment:

- Safety glasses

**Skin and body protection** : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.

- Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

**Hygiene measures** : Ensure that eye flushing systems and safety showers are located close to the working place.

- When using do not eat, drink or smoke.
- Wash contaminated clothing before re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : solid
**Colour** : light green
**Odour** : No information available.
**Odour Threshold** : No data available
**pH** : No data available

**Melting point/freezing point** : No data available

**Initial boiling point and boiling range** : No data available
**Flash point** : Not applicable

**Evaporation rate** : Not applicable

**Flammability (solid, gas)** : Not classified as a flammability hazard
**Flammability (liquids)** : No data available

**Upper explosion limit / Upper flammability limit** : No data available
**Lower explosion limit / Lower flammability limit** : No data available
flammmability limit

Vapour pressure : Not applicable
Relative vapour density : Not applicable
Relative density : No data available
Density : 1.1 g/cm³

Solubility(ies)
  Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable
Auto-ignition temperature : No data available
Decomposition temperature : No data available

Viscosity
  Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : Not applicable
Particle size : Not applicable

10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reac-
tions : Can react with strong oxidizing agents.
Conditions to avoid : None known.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Components:

Quartz:
Acute oral toxicity : LD50 (Rat): > 22,500 mg/kg

Progesterone:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

**Skin corrosion/irritation**
Not classified based on available information.

**Components:**

**Quartz:**
- **Species**: Rabbit
- **Method**: OECD Test Guideline 404
- **Result**: No skin irritation
- **Remarks**: Based on data from similar materials

**Serious eye damage/eye irritation**
Not classified based on available information.

**Components:**

**Quartz:**
- **Species**: Rabbit
- **Method**: OECD Test Guideline 405
- **Result**: No eye irritation
- **Remarks**: Based on data from similar materials

**Respiratory or skin sensitisation**

**Skin sensitisation**
Not classified based on available information.

**Respiratory sensitisation**
Not classified based on available information.

**Germ cell mutagenicity**
Not classified based on available information.

**Components:**

**Progesterone:**

**Genotoxicity in vitro**
- **Test Type**: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
- **Method**: OECD Test Guideline 482
- **Result**: negative

**Genotoxicity in vivo**
- **Test Type**: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
- **Species**: Monkey
- **Application Route**: Subcutaneous
- **Result**: negative

**Carcinogenicity**
May cause cancer by inhalation.
Suspected of causing cancer.
Components:

Quartz:

- **Species**: Humans
- **Application Route**: inhalation (dust/mist/fume)
- **Result**: positive
- **Remarks**: IARC: (International Agency for Research on Cancer)

Carcinogenicity - Assessment: Positive evidence from human epidemiological studies (inhalation)

Progesterone:

- **Species**: Mouse
- **Application Route**: Subcutaneous
- **Exposure time**: 19 weeks
- **Result**: positive

Carcinogenicity - Assessment: Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

May damage fertility or the unborn child.
May cause harm to breast-fed children.

Components:

Progesterone:

- **Effects on fertility**
  - **Test Type**: Fertility
  - **Species**: Rat
  - **Application Route**: Subcutaneous
  - **Result**: positive

- **Effects on foetal development**
  - **Test Type**: Embryo-foetal development
  - **Species**: Rat
  - **Application Route**: Skin contact
  - **Result**: positive

- **Reproductive toxicity - Assessment**: Positive evidence of adverse effects on sexual function, fertility and/or development from human epidemiological studies., Studies indicating a hazard to babies during the lactation period

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Components:

Quartz:

- **Exposure routes**: inhalation (dust/mist/fume)
- **Target Organs**: Lungs
- **Assessment**: Shown to produce significant health effects in animals at con-
centrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity

**Components:**

**Quartz:**
- **Species:** Humans
- **LOAEL:** 0.053 mg/m³
- **Application Route:** Inhalation

Aspiration toxicity
Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

**Product:**

**Components:**

**Quartz:**
- **Toxicity to fish:** LC₅₀ (Danio rerio (zebra fish)): 508 mg/l  
  Exposure time: 96 h  
  Remarks: Based on data from similar materials

- **Toxicity to daphnia and other aquatic invertebrates:** EC₅₀ (Daphnia magna (Water flea)): 731 mg/l  
  Exposure time: 48 h  
  Remarks: Based on data from similar materials

**Progesterone:**

Ecotoxicology Assessment
- **Acute aquatic toxicity:** Toxic effects cannot be excluded
- **Chronic aquatic toxicity:** Toxic effects cannot be excluded

Persistence and degradability
No data available

Bioaccumulative potential

**Components:**

**Progesterone:**
- **Partition coefficient: n-octanol/water:** Pow: 3.65

Mobility in soil
No data available
Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods
- Waste from residues: Dispose of in accordance with local regulations.
- Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.
  If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to IMO instruments
Not applicable for product as supplied.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

The components of this product are reported in the following inventories:
- AICS: not determined
- DSL: not determined
- IECSC: not determined

16. OTHER INFORMATION

Further information

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format: dd.mm.yyyy

Full text of other abbreviations
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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

IN / EN