1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product information** CORATHON EAR TAG 20X1

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Corathon Ear Tags</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSDS Number:</td>
<td>122000007141</td>
</tr>
</tbody>
</table>

**Company**
BAYER HEALTHCARE LLC
Animal Health Division
12707 Shawnee Mission Parkway
(West 63rd)
Shawnee, KS 66216-1846
UNITED STATES
(800) 633-3796

**In case of emergency:** (800) 422-9874
Chemtrec: (800) 424-9300
BAYER INFORMATION PHONE: (800) 633-3796
INTERNATIONAL: (703) 527-3887

2. HAZARDS IDENTIFICATION

**Emergency Overview**

<table>
<thead>
<tr>
<th>Warning</th>
<th>Colour: green</th>
<th>Form: solid</th>
<th>Odour: pungent, sulphurous.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation, skin absorption, or ingestion may cause inhibition of the enzyme cholinesterase. Causes eye irritation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Eye Contact Skin Absorption Skin Contact

**Acute Inhalation Hazards**

Exposure during the end use of this product is expected to be minimal. May cause inhibition of the enzyme cholinesterase with symptoms of runny nose, tearing, tightness of chest, and wheezing. If poisoning is severe, symptoms of fatigue, nausea, vomiting, convulsions, low blood pressure, cardiac irregularities, and coma may occur. In extreme cases death may occur from respiratory failure. The onset of symptoms may be delayed up to 12 hours; however, complete symptomatic recovery of sublethal poisoning usually occurs within one week once the source of exposure is completely removed. May cause respiratory tract irritation with symptoms of coughing,
sore throat and runny nose.

**Acute Skin Hazards**

Skin absorption of the active ingredient in this product may cause inhibition of the enzyme cholinesterase with symptoms of increased sweating, muscle contractions, tearing and constricted pupils. If poisoning is severe, symptoms of fatigue, nausea, vomiting, convulsions, low blood pressure, cardiac irregularities, and coma may occur. In extreme cases death may occur from respiratory failure. The onset of symptoms may be delayed up to 12 hours however, complete symptomatic recovery of sublethal poisoning usually occurs within one week once the source of exposure is completely removed. May cause irritation with symptoms of reddening and itching.

**Acute Eye Hazards**

Causes irritation with symptoms of reddening, tearing, stinging, and swelling.

**Acute Ingestion Hazards**

May cause inhibition of the enzyme cholinesterase with symptoms of vomiting, diarrhea, abdominal cramping, dizziness and sweating. If poisoning is severe, symptoms of fatigue, convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases death may occur from respiratory failure. The onset of symptoms may be delayed up to 12 hours however, complete symptomatic recovery of sublethal poisoning usually occurs within one week once the source of exposure is completely removed.

**Medical Conditions Aggravated by Exposure**

Eye disorders, Skin disorders, Respiratory tract disorders, Kidney disorders

**Metal oxide**

IARC - Evidence of carcinogenicity in humans: Inadequate data.
IARC - Evidence of carcinogenicity in animals: Sufficient data.
IARC - Overall evaluation: Possibly carcinogenic to humans.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Weight percent</th>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 30%</td>
<td>Coumaphos</td>
<td>56-72-4</td>
</tr>
<tr>
<td>30 - 60%</td>
<td>Diazinon</td>
<td>333-41-5</td>
</tr>
<tr>
<td>1 - 5%</td>
<td>Metal oxide</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

General advice: Take off all contaminated clothing immediately.

If inhaled: Remove to fresh air. If symptoms persist, call a physician.

In case of skin contact: After contact with skin, wash immediately with plenty of soap and water. If skin reactions occur, contact a physician.

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

If swallowed: If swallowed, seek medical advice immediately and show this container or label.

Contact Number: Use the Bayer Emergency Number in Section 1

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Any

Specific hazards during fire fighting: Fire may cause evolution of: Hydrogen cyanide (hydrocyanic acid) nitrogen oxides (NOx) Carbon oxides

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

Further information: Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

Methods for cleaning up: Place in closed containers. Label for proper disposal.

Additional advice: Avoid dust formation.

Further Accidental Release Notes: Avoid dust formation.
7. HANDLING AND STORAGE

Handling:
Avoid dust formation. Only handle product with local exhaust ventilation. Avoid contact with skin, eyes and clothing.

Take measures to prevent the build up of electrostatic charge. Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Metal oxide**
US. ACGIH Threshold Limit Values
Time Weighted Average (TWA): 10 mg/m3
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
PEL: 15 mg/m3 (Total dust.)
US. ACGIH Threshold Limit Values
Hazard Designation: Not classifiable as a human carcinogen.

**Coumaphos (56-72-4)**
US. ACGIH Threshold Limit Values
Time Weighted Average (TWA): 0.05 mg/m3 (Inhalable fraction and vapor.)
US. ACGIH Threshold Limit Values
Skin designation: (Inhalable fraction and vapor.) Can be absorbed through the skin.
US. ACGIH Threshold Limit Values
Hazard Designation: Not classifiable as a human carcinogen.

**Respiratory protection:**
Recommended Filter type: HEPA

**Hand protection:**
Chemically resistant gloves.

**Eye protection:**
Protective goggles.

**Other protective measures:**
Wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>green</td>
</tr>
<tr>
<td>Odour</td>
<td>pungent sulphurous</td>
</tr>
<tr>
<td>Density</td>
<td>1.17 g/cm³ at 68 °F (20 °C)</td>
</tr>
<tr>
<td>Bulk density</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not applicable</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
Corathon Ear Tags

Water solubility: insoluble
pH: no data available
Partition coefficient (n-octanol/water): no data available
Solubility in organic solvents: insoluble
Ignition temperature: no data available

10. STABILITY AND REACTIVITY

Conditions to avoid: no data available
Materials to avoid: Oxidizing agents
Hazardous reactions: None known.

Thermal decomposition:
no data available

Hazardous decomposition products:
Hydrogen cyanide (hydrocyanic acid), nitrogen oxides (NOx), Carbon oxides

11. TOXICOLOGICAL INFORMATION

Other information on toxicity:
Metal oxide
As with any nuisance dust, long-term exposure to concentrations of dust above the recommended exposure level may overload lung clearance mechanism and cause adverse lung effects.

Acute oral toxicity:
Coumaphos
LD50 rat: 13 mg/kg

Diazinon
LD50 rat: 66 mg/kg

Metal oxide
LD50 rat: > 20,000 mg/kg

Acute inhalation toxicity:
Metal oxide
LC50 rat: > 6.8 mg/l, 4 h

Acute dermal toxicity:
LD50 rat: > 2,000 mg/kg
Acute toxicity (other routes of administration):
Coumaphos
LD50 intraperitoneal rat: 7500 μg/kg

Skin irritation:
rat
Result: non-irritant

Eye irritation:
Diazinon
rabbit
Result: Severely irritating

Metal oxide
possibly mechanical irritation

Pharmaceutical effects:
Coumaphos
Anthelmintics

12. ECOLOGICAL INFORMATION

General advice:
Do not allow to enter surface waters or groundwater.

Toxicity to fish:
Coumaphos
LC50 0.18 mg/l
Duration of test: 96 h

LC50 0.34 mg/l
Duration of test: 96 h

LC50 0.89 mg/l
Duration of test: 96 h

LC50 5.3 mg/l
Duration of test: 96 h

LC50 5.9 mg/l
Duration of test: 96 h

Metal oxide
static test: LC0 > 1,000 mg/l
Test species: Leuciscus idus (Golden orfe) Duration of test: 48 h

static test: LC0 > 1,000 mg/l
Test species: Phoxinus phoxinus (Eurasian minnow) Duration of test: 30 d

static test: LC0 3 mg/l
Test species: Coregonus autumnalis migratorius G. (Omul) Duration of test: 30 d
Acute Fish toxicity: LC50 240 - 370 mg/l
Test species: Sheepshead minnow (Cyprinodon variegatus) Duration of test: 96 h

Toxicity to daphnia and other aquatic invertebrates:
Metal oxide
static test EC0 > 3 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 30 d

LC50 300 - 400 mg/l
Test species: Mysisopsis almyra (Opposum shrimp) Duration of test: 96 h

Reproduction Test EC100 500 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 30 d

Toxicity to algae:
Coumaphos
Cell multiplication inhibition test EbC50 0.2 mg/l
tested on: Desmodesmus subspicatus (Green algae) Duration of test: 72 h

Cell multiplication inhibition test ErC10 0.13 mg/l
tested on: Desmodesmus subspicatus (Green algae) Duration of test: 72 h

Cell multiplication inhibition test ErC50 0.61 mg/l
tested on: Desmodesmus subspicatus (Green algae) Duration of test: 72 h

Cell multiplication inhibition test EbC10 0.068 mg/l
tested on: Desmodesmus subspicatus (Green algae) Duration of test: 72 h

Cell multiplication inhibition test NOEbC 0.115 mg/l
tested on: Desmodesmus subspicatus (Green algae)

Cell multiplication inhibition test NOErC 0.115 mg/l
tested on: Desmodesmus subspicatus (Green algae)

Toxicity to bacteria:
Metal oxide
EC0 > 10,000 mg/l
tested on: Pseudomonas fluorescens
Duration of test: 24 h

> 5,000 mg/l
tested on: Escherichia coli

Biodegradability:
Coumaphos
1 %, 28 d Not readily biodegradable.

Metal oxide

Pigments are practically not biodegradable.
Bioaccumulation:
Metal oxide

Bioaccumulation is unlikely.

13. DISPOSAL CONSIDERATIONS

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

14. TRANSPORT INFORMATION

**Land transport (DOT)**
Non-Regulated

**Inland waterway transport**
Non-Regulated

**Railway transport**
Non-Regulated

**Sea transport (IMDG)**
Non-Regulated

**Air transport (ICAO / IATA cargo aircraft only)**
Non-Regulated

**Air transport (ICAO / IATA passenger and cargo aircraft)**
Non-Regulated

15. REGULATORY INFORMATION

**FIFRA Status**
This product is registered with the EPA under FIFRA.

**US. Toxic Substances Control Act**
This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA)**
SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

**Components**
Counaphos

**SARA Section 311/312 Hazard**
Immediate Health Hazard, Delayed Health Hazard
Categories

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required
Components
Diazinon

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components
Coumaphos Reportable quantity: 10 lbs
Diazinon Reportable quantity: 1 lbs

Marine pollutant Components
Coumaphos Severe marine pollutant.
Diazinon Severe marine pollutant.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists
Weight percent Components CAS-No.
10 - 30% Coumaphos 56-72-4
30 - 60% Diazinon 333-41-5
1 - 5% Metal oxide

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists
Weight percent Components CAS-No.
10 - 30% Coumaphos 56-72-4
30 - 60% Diazinon 333-41-5

California Prop. 65
To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

OSHA Hazcom Standard Rating Hazardous

16. OTHER INFORMATION

NFPA 704M Rating

| Health | 2 |
| Flammability | 2 |
| Reactivity | 0 |
| Other | 0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme |

Page 9 of 10
Further information

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.