

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1 Revision Date: 2025/04/14 SDS Number: 25300-00025 Date of last issue: 2024/12/03 Date of first issue: 2014/10/24

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : Cloprostenol Formulation  
Other means of identification : ESTRUMATE® (A002698)  
ESTRUMATE SYNTHETIC PROSTAGLANDIN FOR CATTLE  
AND HORSES (36076)

#### Supplier's company name, address and phone number

Company name of supplier : MSD  
Address : 1-13-12, Kudan-kita, Chiyoda-ku, Tokyo, Japan  
Telephone : 03-6272-1099  
E-mail address : EHSDATASTEWARD@msd.com  
Emergency telephone number : +1-908-423-6000

#### Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product  
Restrictions on use : Not applicable

---

### 2. HAZARDS IDENTIFICATION

#### GHS classification of chemical product

Skin sensitisation : Category 1

#### GHS label elements

Hazard pictograms :   
Signal word : Warning  
Hazard statements : H317 May cause an allergic skin reaction.  
Precautionary statements : **Prevention:**  
P261 Avoid breathing mist or vapours.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water.

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

### Disposal:

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

### Other hazards which do not result in classification

None known.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS No.
Benzyl alcohol	100-51-6	>= 1 - < 10	3-1011
Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate	55028-72-3	< 0.1	-

## 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 if symptoms occur.

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.

In case of eye contact : Thoroughly clean shoes before reuse.  
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 if symptoms occur.  
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.

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 (see section 8).

Notes to physician : Treat symptomatically and supportively.

**Cloprostenol Formulation**Version  
10.1Revision Date:  
2025/04/14SDS Number:  
25300-00025Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24**5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon 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 (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
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.

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1	Revision Date: 2025/04/14	SDS Number: 25300-00025	Date of last issue: 2024/12/03 Date of first issue: 2014/10/24
-----------------	------------------------------	----------------------------	---

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

## 7. HANDLING AND STORAGE

### Handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing.  
Avoid breathing mist or vapours.  
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  
Take care to prevent spills, waste and minimize release to the environment.

Avoidance of contact : Oxidizing agents

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.  
When using do not eat, drink or smoke.  
Contaminated work clothing should not be allowed out of the workplace.  
Wash contaminated clothing before re-use.  
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

### Storage

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

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

Packaging material : Unsuitable material: None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Concentra- tion standard / Permissible con- centration	Basis
Benzyl alcohol	100-51-6	OEL-C	25 mg/m3	JP OEL

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1	Revision Date: 2025/04/14	SDS Number: 25300-00025	Date of last issue: 2024/12/03 Date of first issue: 2014/10/24
-----------------	------------------------------	----------------------------	---

				JSOH
	Further information: Skin sensitizing agent; Group 2 substances which probably induce allergic reactions in humans.			
Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)- 7-[2-[4-(3-chlorophenoxy)-3- hydroxybut-1-enyl]-3,5- dihydroxycyclopentyl]hept-5- enoate	55028-72-3	TWA	0.01 ug/m3 (OEB 5)	Internal
	Further information: RSEN, Skin			
		Wipe limit	0.1 ug/100 cm <sup>2</sup>	Internal

### Engineering measures

: The information below is intended for larger pilot/commercial-scale operations and manufacturing. For smaller scale, clinical, or pharmacy settings, site-specific internal risk assessment practices should be conducted to determine appropriate exposure control measures. The health hazard risks of handling this material are dependent on multiple factors, including but not limited to physical form and quantity handled. If applicable, use process enclosures, local exhaust ventilation (e.g., Biosafety Cabinet, Ventilated Balance Enclosures), or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

Use closed processing systems or containment technologies to control at source (e.g., glove boxes/isolators) and to prevent leakage of compounds into the workplace.

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

No open handling permitted.

Totally enclosed processes and materials transport systems are required.

Operations require the use of appropriate containment technology designed to prevent leakage of compounds into the workplace.

### Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Organic vapour type

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.  
Impermeable protective gloves

Eye protection : Wear safety glasses with side shields or goggles.  
If the work environment or activity involves dusty conditions,

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

### Skin and body protection

mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

: Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Aqueous solution

Colour : clear

Odour : No data available

Odour Threshold : No data available

Melting point/freezing point : No data available

Boiling point, initial boiling point and boiling range : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / Up- : No data available  
per flammability limit

Lower explosion limit / : No data available  
Lower flammability limit

Flash point : No data available

Decomposition temperature : No data available

pH : 5.6 - 6.1 (20 - 25 °C)

Evaporation rate : No data available

Auto-ignition temperature : No data available

Viscosity  
Viscosity, kinematic : No data available

Solubility(ies)  
Water solubility : soluble

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1      Revision Date: 2025/04/14      SDS Number: 25300-00025      Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

Partition coefficient: n-octanol/water : Not applicable

Vapour pressure : No data available

Density and / or relative density  
Relative density : 1

Density : No data available

Relative vapour density : No data available

Explosive properties : Not explosive

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

Molecular weight : No data available

Particle characteristics  
Particle size : Not applicable

---

## 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : 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 : Inhalation  
Skin contact  
Ingestion  
Eye contact

### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

#### Components:

##### **Benzyl alcohol:**

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1      Revision Date: 2025/04/14      SDS Number: 25300-00025      Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

Acute oral toxicity : LD50 (Rat): 1,200 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.4 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Acute oral toxicity : LD50 (Rat): > 25 mg/kg  
Remarks: No mortality observed at this dose.

Acute toxicity (other routes of administration) : LD50 (Rat): > 50 mg/kg  
Application Route: Subcutaneous

LD50 (Rat): > 50 mg/kg  
Application Route: Intramuscular

LD50 (Rat): 5 mg/kg  
Application Route: Intravenous  
Remarks: No mortality observed at this dose.

LD50 (Mouse): 350 mg/kg  
Application Route: Intramuscular

LD50 (Mouse): 54.7 mg/kg  
Application Route: Intravenous

TDLo (Monkey): 0.0025 - 0.025 mg/kg  
Application Route: Intramuscular  
Target Organs: Lungs  
Symptoms: Diarrhoea, Vomiting, Rapid respiration

TDLo (Monkey): 0.0013 mg/kg  
Application Route: Intramuscular  
Target Organs: ovaries

### **Skin corrosion/irritation**

Not classified based on available information.

### **Components:**

#### **Benzyl alcohol:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1      Revision Date: 2025/04/14      SDS Number: 25300-00025      Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

Remarks : Not classified due to lack of data.  
Can be absorbed through skin.

### **Serious eye damage/eye irritation**

Not classified based on available information.

#### **Components:**

##### **Benzyl alcohol:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days  
Method : OECD Test Guideline 405

##### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Remarks : Not classified due to lack of data.

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

May cause an allergic skin reaction.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Components:**

##### **Benzyl alcohol:**

Test Type : Human repeat insult patch test (HRIPT)  
Exposure routes : Skin contact  
Species : Humans  
Result : positive  
  
Assessment : Probability or evidence of low to moderate skin sensitisation rate in humans

##### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Result : Sensitiser

### **Germ cell mutagenicity**

Not classified based on available information.

#### **Components:**

##### **Benzyl alcohol:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
  
Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo)

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Result: negative

Test Type: Chromosomal aberration  
Test system: Human lymphocytes  
Result: equivocal

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Cell type: Bone marrow  
Application Route: Intraperitoneal  
Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **Benzyl alcohol:**

Species : Mouse  
Application Route : Ingestion  
Exposure time : 103 weeks  
Method : OECD Test Guideline 451  
Result : negative

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Remarks : Not classified due to lack of data.

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **Benzyl alcohol:**

Effects on fertility : Test Type: Fertility/early embryonic development  
Species: Rat  
Application Route: Ingestion  
Result: negative

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Mouse  
Application Route: Ingestion  
Result: negative

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Effects on fertility : Test Type: Three-generation study  
Species: Rat  
Application Route: Oral  
General Toxicity F1: NOAEL: 0.015 mg/kg body weight  
Fertility: NOAEL: > 0.04 mg/kg body weight  
Result: Animal testing did not show any effects on fertility.

Species: Cattle  
Application Route: Intramuscular  
General Toxicity - Parent: LOAEL: 0.16  $\mu$ g/kg  
Result: positive  
Remarks: Abortion

Effects on foetal development : Test Type: Development  
Species: Rabbit  
Application Route: Subcutaneous  
Teratogenicity: NOAEL: 0.250  $\mu$ g/kg  
Result: No teratogenic effects

Test Type: Development  
Species: Rat  
Application Route: Oral  
Teratogenicity: NOAEL: 100  $\mu$ g/kg  
Result: No teratogenic effects

Reproductive toxicity - Assessment : May damage fertility.

### **STOT - single exposure**

Not classified based on available information.

### **Components:**

### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Target Organs : Lungs  
Assessment : Causes damage to organs.

### **STOT - repeated exposure**

Not classified based on available information.

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

### Components:

#### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Target Organs : Ovary  
Assessment : Causes damage to organs through prolonged or repeated exposure.

### **Repeated dose toxicity**

### Components:

#### **Benzyl alcohol:**

Species : Rat  
NOAEL : 1.072 mg/l  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 28 Days  
Method : OECD Test Guideline 412

#### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Species : Rat  
NOAEL : 0.05 mg/kg  
LOAEL : 0.15 mg/kg  
Application Route : Oral  
Exposure time : 3 Months  
Target Organs : Ovary

Species : Rat  
LOAEL : 0.0125 mg/kg  
Application Route : Subcutaneous  
Exposure time : 30 Days  
Target Organs : Ovary

Species : Monkey  
NOAEL : 0.05 mg/kg  
LOAEL : 0.15 mg/kg  
Application Route : Oral  
Exposure time : 3 Months  
Target Organs : Heart, Testis

### **Aspiration toxicity**

Not classified based on available information.

### Components:

#### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

Not applicable

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1 Revision Date: 2025/04/14 SDS Number: 25300-00025 Date of last issue: 2024/12/03 Date of first issue: 2014/10/24

---

### Experience with human exposure

#### Components:

##### **Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

General Information : Target Organs: Uterus (including cervix)  
Symptoms: Embryo-foetal toxicity, foetal mortality, menstrual irregularities, miscarriage

Inhalation : Target Organs: Lungs  
Symptoms: Bronchospasm, Asthma  
Remarks: May cause sensitisation of susceptible persons by inhalation of aerosol or dust.

Skin contact : Target Organs: Uterus (including cervix)  
Symptoms: Embryolethal effects, menstrual irregularities

Target Organs: Lungs  
Symptoms: Bronchospasm  
Remarks: Can be absorbed through skin.

Target Organs: Uterus (including cervix)  
Symptoms: Embryolethal effects

---

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **Benzyl alcohol:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 460 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 230 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 310 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version 10.1 Revision Date: 2025/04/14 SDS Number: 25300-00025 Date of last issue: 2024/12/03 Date of first issue: 2014/10/24

---

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 51 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211

**Sodium [1 $\alpha$ (Z),2 $\beta$ (1E,3R\*),3 $\alpha$ ,5 $\alpha$ ]-(+/-)-7-[2-[4-(3-chlorophenoxy)-3-hydroxybut-1-enyl]-3,5-dihydroxycyclopentyl]hept-5-enoate:**

### Ecotoxicology Assessment

Acute aquatic toxicity : Toxic effects cannot be excluded  
Chronic aquatic toxicity : Toxic effects cannot be excluded

### Persistence and degradability

#### Components:

##### **Benzyl alcohol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 92 - 96 %  
Exposure time: 14 d

### Bioaccumulative potential

#### Components:

##### **Benzyl alcohol:**

Partition coefficient: n-octanol/water : log Pow: 1.05

### Mobility in soil

No data available

### Hazardous to the ozone layer

Not applicable

### Other adverse effects

No data available

---

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with local regulations.  
Do not dispose of waste into sewer.  
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

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

### UNRTDG

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Environmentally hazardous	:	no

### IATA-DGR

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passenger aircraft)	:	Not applicable

### IMDG-Code

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
EmS Code	:	Not applicable
Marine pollutant	:	Not applicable

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

Refer to section 15 for specific national regulation.

### Special precautions for user

Not applicable

---

## 15. REGULATORY INFORMATION

### Related Regulations

#### Fire Service Law

Not applicable to dangerous materials / designated flammables.

#### Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

### Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacture

Not applicable

#### Harmful Substances Required Permission for Manufacture

Not applicable

#### Substances Prevented From Impairment of Health

Not applicable

#### Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

#### Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

#### Substances Subject to be Notified Names

Law Article 57-2 (Ministerial Order Article 34-2 Appended Table 2)

Chemical name	Concentration (%)	Remarks
Benzyl alcohol	>=1 - <10	-

#### Substances Subject to be Indicated Names

Law Article 57 (Ministerial Order Article 30 Appended Table 2)

Chemical name	Remarks
benzyl alcohol	-

#### Skin and Eye Damage Substances (ISHL MO Art. 594-2)

Chemical name
benzyl alcohol

#### Carcinogenic Substances (Article 577-2 of the Occupational Health and Safety Regulations)

Not applicable

#### Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

#### Ordinance on Prevention of Lead Poisoning

Not applicable

#### Ordinance on Prevention of Tetraalkyl Lead Poisoning

Not applicable

#### Ordinance on Prevention of Organic Solvent Poisoning

Not applicable

#### Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Not applicable

#### Poisonous and Deleterious Substances Control Law

Not applicable

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

### **Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof**

Not applicable

### **High Pressure Gas Safety Act**

Not applicable

### **Explosive Control Law**

Not applicable

### **Vessel Safety Law**

Not regulated as a dangerous good

### **Aviation Law**

Not regulated as a dangerous good

### **Marine Pollution and Sea Disaster Prevention etc Law**

Bulk transportation : Noxious liquid substance(Category Z)

Pack transportation : Not classified as marine pollutant

### **Narcotics and Psychotropics Control Act**

Narcotic or Psychotropic Raw Material (Export / Import Permission)

Not applicable

Specific Narcotic or Psychotropic Raw Material (Export / Import permission)

Not applicable

### **Waste Disposal and Public Cleansing Law**

Industrial waste

### **The components of this product are reported in the following inventories:**

AICS : not determined

DSL : not determined

IECSC : not determined

---

## 16. OTHER INFORMATION

In this SDS, if the concentration of substances subject to notification under the Industrial Safety and Health Law is indicated as a range, it includes cases where it is a trade secret.

### **Further information**

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Date format : yyyy/mm/dd

### **Full text of other abbreviations**

JP OEL JSOH : Japan. The Japan Society for Occupational Health. Recommendation of Occupational Exposure Limits

# SAFETY DATA SHEET



## Cloprostenol Formulation

Version  
10.1

Revision Date:  
2025/04/14

SDS Number:  
25300-00025

Date of last issue: 2024/12/03  
Date of first issue: 2014/10/24

---

JP OEL JSOH / OEL-C : Occupational Exposure Limit-Ceiling

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.

JP / EN