according to GB/T 16483 and GB/T 17519



# **Desogestrel / Ethinyl Estradiol Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 2020/03/23

 2.11
 2020/10/16
 19055-00018
 Date of first issue: 2014/10/06

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Desogestrel / Ethinyl Estradiol Formulation

Manufacturer or supplier's details

Company : Organon & Co.

Address : 30 Hudson Street, 33nd floor

Jersey City, New Jersey, U.S.A 07302

Telephone : 551-430-6000

Emergency telephone number : 215-631-6999

E-mail address : EHSSTEWARD@organon.com

Recommended use of the chemical and restrictions on use

Recommended use : Pharmaceutical

#### 2. HAZARDS IDENTIFICATION

### **Emergency Overview**

Appearance : powder

Colour: White to light yellowOdour: No data available

May cause cancer. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

**GHS Classification** 

Carcinogenicity : Category 1A

Reproductive toxicity : Category 1B

Specific target organ toxicity - :

repeated exposure

Category 1

Long-term (chronic) aquatic

hazard

Category 1

**GHS** label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H350 May cause cancer.

H360FD May damage fertility. May damage the unborn child. H372 Causes damage to organs through prolonged or repeated

according to GB/T 16483 and GB/T 17519



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exposure.

H410 Very toxic to aquatic life with long lasting effects.

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.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

### Physical and chemical hazards

Not classified based on available information.

#### Health hazards

May cause cancer. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure.

#### **Environmental hazards**

Very toxic to aquatic life with long lasting effects.

#### Other hazards which do not result in classification

Dust contact with the eyes can lead to mechanical irritation.

Contact with dust can cause mechanical irritation or drying of the skin.

May form explosive dust-air mixture during processing, handling or other means.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

## Components

Chemical name	CAS-No.	Concentration (% w/w)
Starch	9005-25-8	>= 20 -< 30
Stearic acid	57-11-4	>= 1 -< 10
Desogestrel	54024-22-5	>= 0.1 -< 0.25
Ethinylestradiol	57-63-6	>= 0.025 -< 0.1

### 4. FIRST AID MEASURES

according to GB/T 16483 and GB/T 17519



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General advice : In the case of accident or if you feel unwell, seek medical ad-

vice 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 : If in eyes, rinse well with water.

Get medical attention if irritation develops and persists.

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.

May damage fertility. May damage the unborn child.

Causes damage to organs through prolonged or repeated

exposure.

Contact with dust can cause mechanical irritation or drying of

the skin.

Dust contact with the eyes can lead to mechanical irritation.

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.

### 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

Specific hazards during fire-

fighting

Avoid generating dust; fine dust dispersed in air in sufficient

concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

ucts

Carbon oxides

Nitrogen oxides (NOx)

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances 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.

according to GB/T 16483 and GB/T 17519



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#### **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec: : tive equipment and emer-

gency procedures

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

**Environmental precautions** Avoid release to the environment.

> 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 containment and cleaning up Sweep up or vacuum up spillage and collect in suitable con-

tainer for disposal.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces

with compressed air).

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. 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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

#### 7. HANDLING AND STORAGE

### Handling

Technical measures Static electricity may accumulate and ignite suspended dust

causing an explosion.

Provide adequate precautions, such as electrical grounding

and bonding, or inert atmospheres.

If sufficient ventilation is unavailable, use with local exhaust Local/Total ventilation

ventilation.

Do not get on skin or clothing. Advice on safe handling

Do not breathe dust. Do not swallow.

Avoid contact with eyes.

Wash skin thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep container tightly closed.

Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition.

Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product.

Take care to prevent spills, waste and minimize release to the

environment.

Avoidance of contact Oxidizing agents

according to GB/T 16483 and GB/T 17519



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Storage

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

Packaging material : Unsuitable material: None known.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Starch	9005-25-8	TWA	10 mg/m3	ACGIH
Stearic acid	57-11-4	TWA (Inhal- able particu- late matter)	10 mg/m3	ACGIH
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH
Desogestrel	54024-22-5	TWA	0.04 μg/m3 (OEB 5)	Internal
		Wipe limit	0.4 µg/100 cm <sup>2</sup>	Internal
Ethinylestradiol	57-63-6	TWA	0.01 µg/m3 (OEB 5)	Internal
		Wipe limit	0.1 µg/100 cm <sup>2</sup>	Internal

**Engineering measures** : Use closed processing systems or containment technologies

to control at source (e.g., glove boxes/isolators) and to pre-

vent 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 expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type : Particulates type

Eye/face protection : Wear safety glasses with side shields or goggles.

If the work environment or activity involves dusty conditions,

mists or aerosols, wear the appropriate goggles.

according to GB/T 16483 and GB/T 17519



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Wear a faceshield or other full face protection if there is a

potential for direct contact to the face with dusts, mists, or

aerosols.

Skin and body protection : Work uniform or laboratory coat.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, dis-

posable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Hygiene measures : If exposure to chemical is likely during typical use, provide

eye flushing systems and safety showers close to the work-

ing place.

When using do not eat, drink or smoke. 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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Colour : White to light yellow

Odour : No data 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) : May form explosive dust-air mixture during processing, han-

dling or other means.

Flammability (liquids) : No data available

Upper explosion limit / Upper

flammability limit

No data available

according to GB/T 16483 and GB/T 17519



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Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : No data available

Density : 1 g/cm3

Solubility(ies)

Water solubility : No data available

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.

Particle size : No data available

#### 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard. Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

May form explosive dust-air mixture during processing, han-

dling or other means.

Can react with strong oxidizing agents.

Conditions to avoid : Heat, flames and sparks.

Avoid dust formation.

Incompatible materials

Hazardous decomposition

products

: Oxidizing agents

No hazardous decomposition products are known.

#### 11. TOXICOLOGICAL INFORMATION

Exposure routes : Inhalation

Skin contact Ingestion Eye contact

### **Acute toxicity**

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



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**Components:** 

Starch:

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

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Stearic acid:

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

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l

Exposure time: 1 h
Test atmosphere: vapour

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

**Desogestrel:** 

Acute oral toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

LD50 (Mouse, male and female): > 2,000 mg/kg

**Ethinylestradiol:** 

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

LD50 (Mouse): 1,737 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Not classified based on available information.

Components:

Stearic acid:

Species : Rabbit

Method : Patch Test 24 Hrs.
Result : No skin irritation

**Ethinylestradiol:** 

Remarks : No data available

Serious eye damage/eye irritation

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



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**Components:** 

Starch:

Species : Rabbit

Result : No eye irritation

Stearic acid:

Species : Rabbit

Result : No eye irritation

**Ethinylestradiol:** 

Remarks : No data available

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

**Components:** 

Starch:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Stearic acid:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Remarks : Based on data from similar materials

Ethinylestradiol:

Remarks : No data available

Germ cell mutagenicity

Not classified based on available information.

Components:

Starch:

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

Result: negative

Stearic acid:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

according to GB/T 16483 and GB/T 17519



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Method: OECD Test Guideline 473

Result: negative

Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Remarks: Based on data from similar materials

**Desogestrel:** 

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

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Rat

Application Route: Intraperitoneal

Result: negative

**Ethinylestradiol:** 

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

Test system: Salmonella typhimurium

Result: negative

Test Type: Bacterial reverse mutation assay (AMES)

Test system: Escherichia coli

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Result: equivocal

Genotoxicity in vivo : Test Type: Chromosomal aberration

Species: Mouse

Cell type: Bone marrow Application Route: Oral

Result: positive

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow Application Route: Oral

Result: negative

Germ cell mutagenicity -

Assessment

Weight of evidence does not support classification as a germ

cell mutagen.

Carcinogenicity

May cause cancer.

according to GB/T 16483 and GB/T 17519



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### **Components:**

**Desogestrel:** 

Species : Rat
Application Route : Oral
Exposure time : 104 weeks
Result : negative

Species : Mouse
Application Route : Oral
Exposure time : 81 weeks
Result : negative

**Ethinylestradiol:** 

Species : Rat, male and female

Application Route : Oral
Exposure time : 2 Years
Result : negative

Species : Monkey, female

Application Route : Oral
Exposure time : 10 Years
Result : negative

Carcinogenicity - Assess-

ment

Positive evidence from human epidemiological studies

#### Reproductive toxicity

May damage fertility. May damage the unborn child.

### **Components:**

Stearic acid:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Desogestrel:

Effects on fertility : Test Type: Fertility/early embryonic development

Species: Rabbit, female

Fertility: LOAEL Parent: 2 mg/kg body weight

according to GB/T 16483 and GB/T 17519



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Result: Effects on fertility

Test Type: Fertility/early embryonic development

Species: Rat, female

Fertility: NOAEL Parent: 0.5 mg/kg body weight

Result: No effects on fertility

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rabbit, female Application Route: Oral

Developmental Toxicity: NOAEL F1: 1 mg/kg body weight Result: Embryotoxic effects and adverse effects on the off-

spring were detected., No teratogenic effects

Test Type: Embryo-foetal development

Species: Rat, female Application Route: Oral

Embryo-foetal toxicity: LOAEC Parent: 0.125 mg/kg body

weight

Result: No teratogenic effects

Reproductive toxicity - As-

sessment

Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse

effects on development, based on animal experiments.

**Ethinylestradiol:** 

Effects on fertility : Species: Hamster

Fertility: LOAEL: 6.3 mg/kg body weight

Result: Effects on fertility

Effects on foetal develop-

ment

Test Type: Four-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Developmental Toxicity: LOAEL: > 0.006 mg/kg body weight

Result: Specific developmental abnormalities

Test Type: Two-generation reproduction toxicity study

Species: Rat, male and female

Application Route: Oral

Developmental Toxicity: LOAEL: 0.005 mg/kg body weight

Result: Specific developmental abnormalities

Reproductive toxicity - As-

sessment

Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Clear evidence of adverse

effects on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

according to GB/T 16483 and GB/T 17519



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**Components:** 

Desogestrel:

Target Organs : Pituitary gland, Uterus (including cervix), Ovary, Mammary

gland, Prostate

Assessment : Causes damage to organs through prolonged or repeated

exposure.

**Ethinylestradiol:** 

Target Organs : Liver, Blood

Assessment : Causes damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

**Components:** 

Starch:

Species : Rat

NOAEL : >= 2,000 mg/kg
Application Route : Skin contact
Exposure time : 28 Days

Method : OECD Test Guideline 410

Stearic acid:

Species : Rat

NOAEL : 1,000 mg/kg
Application Route : Ingestion
Exposure time : 42 Days

Method : OECD Test Guideline 422

Remarks : Based on data from similar materials

Desogestrel:

Species : Rat, female LOAEL : 0.00625 mg/kg

Application Route : Oral Exposure time : 26 Weeks

Target Organs : Pituitary gland, Uterus (including cervix), Ovary, Mammary

gland

Species : Rat

LOAEL : 0.005 mg/kg

Application Route : Oral Exposure time : 52 Weeks

Target Organs : Pituitary gland, Uterus (including cervix), Ovary, Mammary

gland

Species : Dog

LOAEL : 0.005 mg/kg
Application Route : Oral

Exposure time : 52 Weeks

according to GB/T 16483 and GB/T 17519



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Target Organs : Pituitary gland, Uterus (including cervix), Ovary, Mammary

gland, Prostate

**Ethinylestradiol:** 

Species : Rat

NOAEL : 0.25 mg/kg

LOAEL : 0.5 mg/kg

Application Route : Oral

Exposure time : 2 Weeks

Target Organs : Liver

Species : Rabbit
LOAEL : 0.015 mg/kg
Application Route : Oral
Exposure time : 20 Weeks
Target Organs : Liver

Species : Dog
NOAEL : 0.04 mg/kg
LOAEL : 0.2 mg/kg
Application Route : Oral
Exposure time : 95 d
Target Organs : Blood

Species : Rat, male and female

 NOAEL
 : 0.0015 mg/kg

 LOAEL
 : 0.005 mg/kg

Application Route : Oral Exposure time : 2 yr

Target Organs : Reproductive organs, Mammary gland, Liver, Uterus (includ-

ing cervix)

### **Aspiration toxicity**

Not classified based on available information.

### Experience with human exposure

### **Components:**

Desogestrel:

Ingestion : Symptoms: Headache, changes in libido, Dizziness, Nausea,

Vomiting, Diarrhoea, water retention, sodium retention, Gastrointestinal discomfort, mental depression, amenorhea, insomnia, impaired glucose tolerance, pulmonary embolism

Target Organs: Uterus (including cervix)

Target Organs: Mammary gland

Ethinylestradiol:

Ingestion : Symptoms: Abdominal pain, Nausea, Vomiting, Diarrhoea,

Headache, Dizziness, mood swings, Oedema, liver function change, water retention, hair loss, gynecomastia, effects on

menstruation

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#### 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

#### Components:

Stearic acid:

Toxicity to fish : LL50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l

Exposure time: 48 h Method: DIN 38412

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 10 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

No toxicity at the limit of solubility

Toxicity to algae/aquatic

plants

NOELR (Pseudokirchneriella subcapitata (green algae)): > 10

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

No toxicity at the limit of solubility

EL50 (Pseudokirchneriella subcapitata (green algae)): > 1

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

No toxicity at the limit of solubility

Toxicity to daphnia and other : aquatic invertebrates (Chron-

Toxicity to daphnia and other :

ic toxicity)

NOELR (Daphnia magna (Water flea)): > 0.5 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

No toxicity at the limit of solubility

Toxicity to microorganisms : EC10 (Pseudomonas putida): 883 mg/l

Exposure time: 18 h

Desogestrel:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4 mg/l

Exposure time: 96 h Method: FDA 4.11

Remarks: Based on data from similar materials

LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.3 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: No toxicity at the limit of solubility Based on data from similar materials

EC50 (Daphnia magna (Water flea)): > 3.9 mg/l

according to GB/T 16483 and GB/T 17519



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aquatic invertebrates Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility

Based on data from similar materials

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.059 mg/l

Exposure time: 32 d

Method: OECD Test Guideline 210

Remarks: Based on data from similar materials

NOEC (Oryzias latipes (Japanese medaka)): 0.0000027 mg/l

Exposure time: 183 d

Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 1.2 mg/l

Exposure time: 21 d

Remarks: Based on data from similar materials

M-Factor (Chronic aquatic

toxicity)

Toxicity to microorganisms

10,000

EC50: > 1,000 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

NOEC: 70.8 mg/l Exposure time: 3 h

Test Type: Respiration inhibition

Remarks: Based on data from similar materials

**Ethinylestradiol:** 

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 6.7

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 6.7

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.01 µg/l

Exposure time: 35 d

Method: OECD Test Guideline 210

NOEC (Zebrafish): 0.00031 µg/l

Exposure time: 339 d

according to GB/T 16483 and GB/T 17519



# Desogestrel / Ethinyl Estradiol Formulation

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 2020/03/23

 2.11
 2020/10/16
 19055-00018
 Date of first issue: 2014/10/06

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.75 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

M-Factor (Chronic aquatic

toxicity)

: 100,000

Toxicity to microorganisms : EC50: > 1,000 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

NOEC: 24.9 mg/l Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

### Persistence and degradability

#### **Components:**

Stearic acid:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 71 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Desogestrel:

Stability in water : Hydrolysis: < 10 %(5 d)

Remarks: Based on data from similar materials

#### Bioaccumulative potential

## **Components:**

Stearic acid:

Partition coefficient: n-

octanol/water

log Pow: 8.23

**Desogestrel:** 

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 128

Remarks: Based on data from similar materials

Partition coefficient: n-

octanol/water

log Pow: 3.5

**Ethinylestradiol:** 

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 264 Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

log Pow: 4.15

according to GB/T 16483 and GB/T 17519



# Desogestrel / Ethinyl Estradiol Formulation

Version SDS Number: Date of last issue: 2020/03/23 Revision Date: 2.11 2020/10/16 19055-00018 Date of first issue: 2014/10/06

Mobility in soil

**Components:** 

Desogestrel:

Distribution among environ-

mental compartments

**Ethinylestradiol:** 

Distribution among environ-

mental compartments

log Koc: 3.86

log Koc: 2.84

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 han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

**UNRTDG** 

**UN** number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Ethinylestradiol, Desogestrel)

Class Packing group Ш Labels 9

**IATA-DGR** 

UN/ID No. **UN 3077** 

Proper shipping name Environmentally hazardous substance, solid, n.o.s.

(Ethinylestradiol, Desogestrel)

9 Class Ш Packing group

Labels Miscellaneous

Packing instruction (cargo

aircraft)

Packing instruction (passen-956

ger aircraft)

Environmentally hazardous yes

**IMDG-Code** 

**UN** number UN 3077

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, Proper shipping name

N.O.S.

956

(Ethinylestradiol, Desogestrel)

Class

according to GB/T 16483 and GB/T 17519



## Desogestrel / Ethinyl Estradiol Formulation

Version Revision Date: SDS Number: Date of last issue: 2020/03/23 2.11 2020/10/16 19055-00018 Date of first issue: 2014/10/06

Packing group Ш Labels 9 **EmS Code** F-A, S-F yes Marine pollutant

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

Not applicable for product as supplied.

### **National Regulations**

GB 6944/12268

UN number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Ethinylestradiol, Desogestrel)

Class 9 Packing group Ш Labels 9

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 15. REGULATORY INFORMATION

### National regulatory information

Law on the Prevention and Control of Occupational Diseases

### 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** 

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 Agen-

cy, http://echa.europa.eu/

Date format : yyyy/mm/dd

Full text of other abbreviations

**ACGIH** : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA 8-hour, time-weighted average

according to GB/T 16483 and GB/T 17519



## **Desogestrel / Ethinyl Estradiol Formulation**

Version Revision Date: SDS Number: Date of last issue: 2020/03/23 2.11 2020/10/16 19055-00018 Date of first issue: 2014/10/06

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; 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

#### **Disclaimer**

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.

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