according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

Version SDS Number: Date of last issue: 2020/03/23 Revision Date: 4.5 2020/10/16 26482-00015 Date of first issue: 2014/10/29

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Ezetimibe / Atorvastatin Formulation

Manufacturer or supplier's details

Company : Organon & Co.

Address 30 Hudson Street, 33nd floor

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

551-430-6000 Telephone

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**

: powder **Appearance** Colour off-white

Odour No data available

May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with

long lasting effects.

**GHS Classification** 

Specific target organ toxicity - : Category 2

repeated exposure

Long-term (chronic) aquatic

hazard

Category 2

**GHS label elements** 

Hazard pictograms



Signal word

Hazard statements H373 May cause damage to organs through prolonged or re-

peated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements Prevention:

P260 Do not breathe dust.

according to GB/T 16483 and GB/T 17519



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P273 Avoid release to the environment.

Response:

P314 Get medical advice/ attention if you feel unwell.

P391 Collect spillage.

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 damage to organs through prolonged or repeated exposure.

#### **Environmental hazards**

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) |
|--------------------|-------------|-----------------------|
| Cellulose          | 9004-34-6   | >= 20 -< 30           |
| Atorvastatin       | 134523-03-8 | >= 10 -< 20           |
| Ezetimibe          | 163222-33-1 | >= 2.5 -< 10          |
| Magnesium stearate | 557-04-0    | >= 1 -< 10            |

#### 4. FIRST AID MEASURES

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 if symptoms occur.

In case of skin contact : Wash with water and soap.

Get medical attention if symptoms occur.

: If in eyes, rinse well with water. In case of eye contact

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 damage to organs through prolonged or repeated

exposure.

Contact with dust can cause mechanical irritation or drying of

according to GB/T 16483 and GB/T 17519



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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) Fluorine compounds

Metal oxides

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.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective 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 dis-

according to GB/T 16483 and GB/T 17519



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posal 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. Use only with adequate ventilation.

Local/Total ventilation Advice on safe handling

: Do not breathe dust.

Do not swallow.

Avoid contact with eyes.

Avoid prolonged or repeated contact with skin.

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

sessment

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.

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

environment.

Avoidance of contact : Oxidizing agents

**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

# Components with workplace control parameters

| Components         | CAS-No.     | Value type<br>(Form of | Control parame-<br>ters / Permissible | Basis    |
|--------------------|-------------|------------------------|---------------------------------------|----------|
|                    |             | exposure)              | concentration                         |          |
| Cellulose          | 9004-34-6   | PC-TWA                 | 10 mg/m3                              | CN OEL   |
|                    |             | TWA                    | 10 mg/m3                              | ACGIH    |
| Atorvastatin       | 134523-03-8 | TWA                    | 0.05 mg/m3 (OEB                       | Internal |
|                    |             |                        | 3)                                    |          |
|                    |             | Wipe limit             | 0.5 mg/100 cm <sup>2</sup>            | Internal |
| Ezetimibe          | 163222-33-1 | TWA                    | 25 μg/m3 (OEB 3)                      | Internal |
|                    |             | Wipe limit             | 250 µg/100 cm <sup>2</sup>            | Internal |
| Magnesium stearate | 557-04-0    | TWA (Inhal-            | 10 mg/m3                              | ACGIH    |
|                    |             | able particu-          |                                       |          |

according to GB/T 16483 and GB/T 17519



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| late matter)  |         |       |
|---------------|---------|-------|
| TWA (Res-     | 3 mg/m3 | ACGIH |
| pirable par-  |         |       |
| ticulate mat- |         |       |
| ter)          |         |       |

**Engineering measures** : All engineering controls should be implemented by facility

design and operated in accordance with GMP principles to

protect products, workers, and the environment.

Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face con-

tainment devices). Minimize open handling.

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.

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 : off-white

according to GB/T 16483 and GB/T 17519



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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 : No data available

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

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : 0.01 g/l

Partition coefficient: n-

octanol/water

: No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

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

Molecular weight : No data available

Particle size : No data available

according to GB/T 16483 and GB/T 17519



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#### 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.

Oxidizing agents

Incompatible materials

Hazardous decomposition

products

: 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.

#### **Components:**

Cellulose:

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

Acute inhalation toxicity : LC50 (Rat): > 5.8 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

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

Atorvastatin:

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

LD50 (Mouse, male and female): > 5,000 mg/kg

Ezetimibe:

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

LD50 (Mouse): > 5,000 mg/kg

LD50 (Dog): > 3,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of : LD50 (Rat): > 2,000 mg/kg

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

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administration) Application Route: Intraperitoneal

LD50 (Mouse): > 1,000 - < 2,000 mg/kg Application Route: Intraperitoneal

Magnesium stearate:

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

Method: OECD Test Guideline 423

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: Based on data from similar materials

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

Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

**Components:** 

Atorvastatin:

Species : Rabbit

Result : No skin irritation

Ezetimibe:

Species : Rabbit

Result : No skin irritation

Magnesium stearate:

Species : Rabbit

Result : No skin irritation

Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

**Components:** 

Atorvastatin:

Species : Rabbit

Result : No eye irritation Method : Draize Test

Ezetimibe:

Species : Rabbit

Result : No eye irritation

Magnesium stearate:

Species : Rabbit

Result : No eye irritation

according to GB/T 16483 and GB/T 17519



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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.

#### **Components:**

#### Atorvastatin:

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

#### **Ezetimibe:**

Test Type : Maximisation Test
Species : Guinea pig
Result : negative

#### Magnesium stearate:

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

Method : OECD Test Guideline 406

Result : negative

Remarks : Based on data from similar materials

#### Germ cell mutagenicity

Not classified based on available information.

### **Components:**

#### Cellulose:

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

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Ingestion

Result: negative

Atorvastatin:

Genotoxicity in vitro : Test Type: reverse mutation assay

Test system: Salmonella typhimurium

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

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Result: negative

Test Type: reverse mutation assay Test system: Escherichia coli

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Result: negative

Test Type: sister chromatid exchange assay Test system: Chinese hamster lung cells

Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse

Cell type: Bone marrow Application Route: Oral

Result: negative

**Ezetimibe:** 

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

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: Chromosomal aberration Test system: Human lymphocytes

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow Application Route: Oral Result: negative

Magnesium stearate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Result: negative

Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

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

#### Carcinogenicity

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



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#### **Components:**

Cellulose:

Species : Rat
Application Route : Ingestion
Exposure time : 72 weeks
Result : negative

Atorvastatin:

Species : Mouse, male and female

Application Route : oral (gavage) Exposure time : 2 Years

NOAEL : 200 mg/kg body weight LOAEL : 400 mg/kg body weight

Result : negative Target Organs : Liver

Species : Rat, female
Application Route : oral (gavage)
Exposure time : 2 Years

LOAEL : 100 mg/kg body weight Target Organs : Musculo-skeletal system

Ezetimibe:

Species : Rat, female
Application Route : oral (feed)
Exposure time : 104 weeks
Result : negative

Species : Rat, male
Application Route : oral (feed)
Exposure time : 104 weeks
Result : negative

Species : Mouse
Application Route : oral (feed)
Exposure time : 104 weeks
Result : negative

#### Reproductive toxicity

Not classified based on available information.

#### **Components:**

Cellulose:

Effects on fertility : Test Type: One-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal develop-

ment

Test Type: Fertility/early embryonic development

Species: Rat

according to GB/T 16483 and GB/T 17519



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Application Route: Ingestion

Result: negative

Atorvastatin:

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

Species: Rat, female

Fertility: NOAEL: 225 mg/kg body weight

Result: No effects on fertility

Test Type: Fertility/early embryonic development

Species: Rat, male

Fertility: NOAEL: 175 mg/kg body weight

Result: No effects on fertility

Effects on foetal develop-

ment

Species: Rat, female

Developmental Toxicity: NOAEL: 20 mg/kg body weight Result: No teratogenic effects, Embryo-foetal toxicity

Remarks: Maternal toxicity observed.

Species: Rabbit, female Application Route: Oral

Developmental Toxicity: NOAEL: 100 mg/kg body weight

Result: No embryo-foetal toxicity

Ezetimibe:

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

Species: Rat, male and female

Fertility: NOAEL: > 1,000 mg/kg body weight Result: No effects on fertility, No fetotoxicity

Effects on foetal develop-

ment

Test Type: Development

Species: Rat

Application Route: Oral

Developmental Toxicity: NOAEL: > 1,000 mg/kg body weight

Result: No adverse effects

Test Type: Development

Species: Rabbit Application Route: Oral

Developmental Toxicity: NOAEL: > 1,000 mg/kg body weight

Result: No adverse effects

Magnesium stearate:

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: Test Type: Embryo-foetal development

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

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ment Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

### STOT - single exposure

Not classified based on available information.

#### STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

#### **Components:**

#### Atorvastatin:

Exposure routes : Ingestion
Target Organs : Liver, muscle

Assessment : May cause damage to organs through prolonged or repeated

exposure.

#### Repeated dose toxicity

#### **Components:**

#### Cellulose:

Species : Rat

NOAEL : >= 9,000 mg/kg

Application Route : Ingestion Exposure time : 90 Days

#### Atorvastatin:

Species : Rat, male and female

LOAEL : 70 mg/kg
Application Route : oral (gavage)
Exposure time : 52 Weeks
Target Organs : Liver

Species : Dog
LOAEL : 10 mg/kg
Application Route : oral (gavage)
Exposure time : 104 Weeks
Target Organs : Liver

#### Ezetimibe:

Species : Dog

NOAEL : 1,000 mg/kg

Application Route : Oral Exposure time : 90 d

Remarks : No significant adverse effects were reported

Species : Rat

NOAEL : 1,500 mg/kg

Application Route : Oral

according to GB/T 16483 and GB/T 17519



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Exposure time : 90 d

Remarks : No significant adverse effects were reported

Species : Mouse
NOAEL : 500 mg/kg
Application Route : Oral
Exposure time : 90 d

Remarks : No significant adverse effects were reported

Species : Dog
NOAEL : 300 mg/kg
Application Route : Oral
Exposure time : 1 yr

Remarks : No significant adverse effects were reported

Magnesium stearate:

Species : Rat

NOAEL : > 100 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Remarks : Based on data from similar materials

**Aspiration toxicity** 

Not classified based on available information.

**Components:** 

**Ezetimibe:** 

Not applicable

**Experience with human exposure** 

**Components:** 

Atorvastatin:

Ingestion : Symptoms: muscle pain, Fatigue, stomach discomfort, Ab-

dominal pain, constipation, flatulence, liver function change

**Ezetimibe:** 

Ingestion : Symptoms: Headache, Nausea, Vomiting, Diarrhoea, flatu-

lence, muscle pain, upper respiratory tract infection, Back

pain, joint pain

12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

**Components:** 

Cellulose:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

according to GB/T 16483 and GB/T 17519



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Atorvastatin:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 92 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 200 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 108

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 14

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.49 mg/l

Exposure time: 33 d

Method: OECD Test Guideline 210

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.2 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

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

Exposure time: 3 h

Test Type: Respiration inhibition

Ezetimibe:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 0.125 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 4 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): >

0.317 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

Remarks: No toxicity at the limit of solubility

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.317

mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

according to GB/T 16483 and GB/T 17519



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Remarks: No toxicity at the limit of solubility

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.051 mg/l

Exposure time: 33 d

Method: OECD Test Guideline 210

NOEC (Cyprinodon variegatus (sheepshead minnow)): 4 mg/l

Exposure time: 7 d

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.282 mg/l

Exposure time: 21 d

Remarks: No toxicity at the limit of solubility

M-Factor (Chronic aquatic

toxicity)

Toxicity to microorganisms

1

EC50: > 4.4 mg/l Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

Remarks: No toxicity at the limit of solubility

NOEC: 4.4 mg/l Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

Remarks: No toxicity at the limit of solubility

Magnesium stearate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l

Exposure time: 48 h Method: DIN 38412

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 1 mg/l

Exposure time: 47 h

Test substance: Water Accommodated Fraction Method: Directive 67/548/EEC, Annex V, C.2. Remarks: Based on data from similar materials

No toxicity at the limit of solubility

Toxicity to algae/aquatic

plants

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

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

No toxicity at the limit of solubility

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

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

Version Revision Date: SDS Number: Date of last issue: 2020/03/23 4.5 2020/10/16 26482-00015 Date of first issue: 2014/10/29

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 100 mg/l

Exposure time: 16 h

Test substance: Water Accommodated Fraction Remarks: Based on data from similar materials

# Persistence and degradability

**Components:** 

Cellulose:

Biodegradability : Result: Readily biodegradable.

Atorvastatin:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 7.7 % Exposure time: 28 d

Method: OECD Test Guideline 314

Ezetimibe:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 6.8 % Exposure time: 28 d

Stability in water : Hydrolysis: 50 %(4.5 d)

Method: OECD Test Guideline 111

Magnesium stearate:

Biodegradability : Result: Not biodegradable

Remarks: Based on data from similar materials

**Bioaccumulative potential** 

**Components:** 

Atorvastatin:

Partition coefficient: n-

: log Pow: 1.62

octanol/water Ezetimibe:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 173

Exposure time: 97 d

Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

log Pow: 4.36

Magnesium stearate:

Partition coefficient: n- : log Pow: > 4

according to GB/T 16483 and GB/T 17519



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octanol/water

Mobility in soil

**Components:** 

Atorvastatin:

Distribution among environ-

mental compartments

**Ezetimibe:** 

Distribution among environ-

mental compartments

log Koc: 4.35

log Koc: 2.84

Method: OECD Test Guideline 106

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

**Disposal methods** 

Waste from residues Dispose of in accordance with local regulations.

Empty containers should be taken to an approved waste han-Contaminated packaging

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

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, Proper shipping name

N.O.S.

(Ezetimibe, Atorvastatin)

Class 9 Packing group Ш Labels 9

**IATA-DGR** 

UN/ID No. UN 3077

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

(Ezetimibe, Atorvastatin)

9 Class Packing group Ш

Labels Miscellaneous

Packing instruction (cargo

aircraft)

956

Packing instruction (passen-

956

ger aircraft)

Environmentally hazardous yes

**IMDG-Code** 

**UN** number UN 3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

Date of last issue: 2020/03/23 Version Revision Date: SDS Number: 4.5 2020/10/16 26482-00015 Date of first issue: 2014/10/29

N.O.S.

(Ezetimibe, Atorvastatin)

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

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

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, Proper shipping name

N.O.S.

(Ezetimibe, Atorvastatin)

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

Date format yyyy/mm/dd

Full text of other abbreviations

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

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

Internal technical data, data from raw material SDSs, OECD

eChem Portal search results and European Chemicals Agen-

according to GB/T 16483 and GB/T 17519



# **Ezetimibe / Atorvastatin Formulation**

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

 4.5
 2020/10/16
 26482-00015
 Date of first issue: 2014/10/29

CN OEL : Occupational exposure limits for hazardous agents in the

workplace - Chemical hazardous agents.

ACGIH / TWA : 8-hour, time-weighted average

CN OEL / PC-TWA : Permissible concentration - time weighted average

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.

CN / EN