

# **Ezetimibe / Simvastatin Formulation**



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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

#### **SECTION 1. IDENTIFICATION**

Product name : Ezetimibe / Simvastatin Formulation

Manufacturer or supplier's details

Company name of supplier : Organon & Co.

Address : 30 Hudson Street, 33nd floor

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

Telephone : 551-430-6000 Emergency telephone : 215-631-6999

E-mail address : EHSSTEWARD@organon.com

Recommended use of the chemical and restrictions on use

Recommended use : Pharmaceutical

#### **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Skin irritation : Category 2

Skin sensitization : Category 1

Specific target organ toxicity

- repeated exposure

Category 1 (Liver, muscle, optic nerve, Eye)

#### **GHS** label elements

Hazard pictograms :





Signal Word : Danger

Hazard Statements : If small particles are generated during further processing,

handling or by other means, may form combustible dust

concentrations in air. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H372 Causes damage to organs (Liver, muscle, optic nerve,

Eye) through prolonged or repeated exposure.

Precautionary Statements : Prevention:

P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing must not be allowed out of

the workplace.

P280 Wear protective gloves.

Response:



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P314 Get medical attention if you feel unwell.

P333 + P313 If skin irritation or rash occurs: Get medical atten-

tion.

P362 + P364 Take off contaminated clothing and wash it before

reuse.

Disposal:

P501 Dispose of contents and container to an approved waste

disposal plant.

#### Other hazards

Dust contact with the eyes can lead to mechanical irritation.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

## Components

Chemical name	CAS-No.	Concentration (% w/w)
Cellulose	9004-34-6	>= 10 - < 20
Ezetimibe	163222-33-1	>= 10 - < 20
Simvastatin	79902-63-9	>= 10 - < 20
Magnesium stearate	557-04-0	>= 1 - < 5

Actual concentration is withheld as a trade secret

## **SECTION 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 plenty of water

for at least 15 minutes while removing 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 : 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

and .

Causes skin irritation.

May cause an allergic skin reaction.

delayed

Causes damage to organs through prolonged or repeated

exposure.

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).



# **Ezetimibe / Simvastatin Formulation**



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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

Notes to physician : Treat symptomatically and supportively.

#### **SECTION 5. FIRE-FIGHTING 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 fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

#### **SECTION 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 protective 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

container 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

determine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.



ORGANON

# **Ezetimibe / Simvastatin Formulation**

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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

#### **SECTION 7. HANDLING AND STORAGE**

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.

Local/Total ventilation : Use only with adequate ventilation.

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

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

assessment

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.

Conditions for safe storage : Keep in properly labeled containers.

Store in accordance with the particular national regulations.

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

Strong oxidizing agents

Organic peroxides

Explosives Gases

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### Ingredients with workplace control parameters

CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
9004-34-6	TWA	10 mg/m <sup>3</sup>	ACGIH
	TWA (Respirable)	5 mg/m³	NIOSH REL
	TWA (total)	10 mg/m <sup>3</sup>	NIOSH REL
	TWA (total dust)	15 mg/m³	OSHA Z-1
	TWA (respirable fraction)	5 mg/m³	OSHA Z-1
163222-33-1	TWA	25 μg/m3 (OEB 3)	Internal
	Wipe limit	250 µg/100 cm <sup>2</sup>	Internal
79902-63-9	TWA	25 μg/m3 (OEB 3)	Internal
Further information: DSEN			
	Wipe limit	250 µg/100 cm <sup>2</sup>	Internal
557-04-0	TWA (Inhal- able particu-	10 mg/m <sup>3</sup>	ACGIH
	9004-34-6 163222-33-1 79902-63-9 Further informa	(Form of exposure)  9004-34-6 TWA TWA (Respirable) TWA (total) TWA (total) TWA (respirable fraction)  163222-33-1 TWA Wipe limit  79902-63-9 TWA Further information: DSEN Wipe limit  557-04-0 TWA (Inhal-	(Form of exposure)         ters / Permissible concentration           9004-34-6         TWA         10 mg/m³           TWA (Respirable)         5 mg/m³           TWA (total)         10 mg/m³           TWA (total)         15 mg/m³           dust)         5 mg/m³           TWA (respirable fraction)         5 mg/m³           163222-33-1         TWA         25 μg/m³ (OEB 3)           Wipe limit         250 μg/100 cm²           79902-63-9         TWA         25 μg/m³ (OEB 3)           Further information: DSEN         Wipe limit         250 μg/100 cm²           557-04-0         TWA (Inhalable particu-lable par



# **Ezetimibe / Simvastatin Formulation**



Version 6.4	10/16/2020	28137-00016			-	
			TWA (Respirable particulate matter)	3 mg/m³	ACGIH	

**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

containment devices).
Minimize open handling.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to

maintain vapor exposures below recommended limits. Where

concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided

by air purifying respirators against exposure to any

hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other

circumstance where air purifying respirators may not provide

adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Eye 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, disposable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

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,



# **Ezetimibe / Simvastatin Formulation**

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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the

use of administrative controls.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : powder

Color : No data available

Odor : No data available

Odor 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 : No data available

Evaporation rate : No data available

Flammability (solid, gas) : May form explosive dust-air mixture during processing,

handling 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

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive



ORGANON

# **Ezetimibe / Simvastatin Formulation**

Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

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

Molecular weight : No data available

Particle size : No data available

#### **SECTION 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,

handling or other means.

Can react with strong oxidizing agents.

Conditions to avoid : Heat, flames and sparks.

Avoid dust formation.

Incompatible materials

Hazardous decomposition

Oxidizing agents

products

No hazardous decomposition products are known.

# **SECTION 11. TOXICOLOGICAL INFORMATION**

## Information on likely routes of exposure

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

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



# **Ezetimibe / Simvastatin Formulation**

Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

Acute toxicity (other routes of :

administration)

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

Application Route: Intraperitoneal

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

Simvastatin:

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

LD50 (Mouse): 3,800 mg/kg

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

Causes skin irritation.

**Components:** 

Ezetimibe:

Species : Rabbit

Result : No skin irritation

Simvastatin:

Species : Rabbit

Remarks : Moderate 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:** 

**Ezetimibe:** 

Species : Rabbit

Result : No eye irritation

Simvastatin:

Species : Rabbit



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

Remarks : slight irritation

Magnesium stearate:

Species : Rabbit

Result : No eye irritation

Remarks : Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

**Components:** 

**Ezetimibe:** 

Test Type : Maximization Test

Species : Guinea pig Result : negative

Simvastatin:

Assessment : Probability or evidence of skin sensitization in humans

Result : positive

Magnesium stearate:

Test Type : Maximization Test Routes of exposure : 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



# **Ezetimibe / Simvastatin Formulation**

Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

**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

Simvastatin:

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

Result: negative

Test Type: Alkaline elution assay

Result: negative

Test Type: Chromosomal aberration

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse Application Route: Oral Result: negative

Germ cell mutagenicity -

Assessment

Weight of evidence does not support classification as a germ

cell mutagen.

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.



# **Ezetimibe / Simvastatin Formulation**



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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

#### **Components:**

Cellulose:

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

Ezetimibe:

Species: Rat, femaleApplication Route: oral (feed)Exposure time: 104 weeksResult: 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

Simvastatin:

Species : Mouse Application Route : Oral

Exposure time : < 92 weeks
Target Organs : Harderian gland
Tumor Type : Liver, Lungs

Remarks : The significance of these findings for humans is not certain.

Species : Rat
Application Route : Oral
Exposure time : 2 Years
Tumor Type : Liver, Thyroid

Remarks : The significance of these findings for humans is not certain.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

## Reproductive toxicity

Not classified based on available information.

## **Components:**

## Cellulose:



# **Ezetimibe / Simvastatin Formulation**



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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

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

Species: Rat

Application Route: Ingestion

Result: negative

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

Species: Rat

Application Route: Ingestion

Result: negative

**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 fetal development : 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.

Simvastatin:

Effects on fertility : Test Type: Fertility

Species: Rat, male Application Route: Oral

Fertility: LOAEL: 25 mg/kg body weight

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Oral

Embryo-fetal toxicity.: NOAEL: 25 mg/kg body weight Result: No teratogenic effects., No adverse effects.

Test Type: Embryo-fetal development

Species: Rabbit Application Route: Oral

Embryo-fetal toxicity.: NOAEL: 10 mg/kg body weight Result: No teratogenic effects., No adverse effects.

Test Type: Embryo-fetal development

Species: Rat

Application Route: Oral

Embryo-fetal toxicity.: LOAEL: 60 mg/kg body weight

Result: Teratogenic potential.

Remarks: Based on data from similar materials



# **Ezetimibe / Simvastatin Formulation**

Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

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 fetal development : Test Type: Embryo-fetal development

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

Causes damage to organs (Liver, muscle, optic nerve, Eye) through prolonged or repeated exposure.

## **Components:**

#### Simvastatin:

Target Organs : Liver, muscle, optic nerve, Eye

Assessment : Causes 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

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 Exposure time : 90 d

Remarks : No significant adverse effects were reported

Species : Mouse NOAEL : 500 mg/kg



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

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 y

Remarks : No significant adverse effects were reported

Simvastatin:

Species : Rat

NOAEL : 5 mg/kg

LOAEL : 30 mg/kg

Application Route : Oral

Exposure time : 14 - 104 Weeks

Target Organs : Liver, Testis, Musculo-skeletal system, Eye

Species : Dog LOAEL : 10 mg/kg Application Route : Oral

Exposure time : 14 - 104 Weeks Target Organs : Liver, Testis, Eye

Species : Rabbit
NOAEL : 30 mg/kg
LOAEL : 50 mg/kg
Application Route : Oral

Target Organs : Liver, Kidney

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:** 

**Ezetimibe:** 

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

lence, muscle pain, upper respiratory tract infection, Back

pain, joint pain



# **Ezetimibe / Simvastatin Formulation**



Version **Revision Date:** SDS Number: Date of last issue: 03/23/2020 10/16/2020 28137-00016 Date of first issue: 11/04/2014 6.4

Simvastatin:

Remarks: May produce an allergic reaction. Skin contact

Ingestion Target Organs: Liver

Symptoms: upper respiratory tract infection, Headache, Ab-

dominal pain, constipation, Nausea Target Organs: Musculo-skeletal system

#### **SECTION 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

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

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.

Toxicity to microorganisms EC50: > 4.4 mg/l



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

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.

Simvastatin:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.91 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 3.5 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 25

mg/

Exposure time: 96 h

NOEC (Pseudokirchneriella subcapitata (green algae)): 25

mg/l

Exposure time: 96 h

Toxicity to microorganisms : EC50: > 30 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

NOEC: 21 mg/l Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

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



# **Ezetimibe / Simvastatin Formulation**

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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

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

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.

**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

Simvastatin:

Biodegradability : Result: rapidly degradable

Stability in water : Hydrolysis: 50 %(3.2 d)

Magnesium stearate:

Biodegradability : Result: Not biodegradable.

Remarks: Based on data from similar materials

## **Bioaccumulative potential**

## **Components:**

Ezetimibe:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 173

Exposure time: 97 d

Method: OECD Test Guideline 305

Partition coefficient: n- : log Pow: 4.36



# **Ezetimibe / Simvastatin Formulation**



Version **Revision Date:** SDS Number: Date of last issue: 03/23/2020 10/16/2020 28137-00016 Date of first issue: 11/04/2014 6.4

octanol/water

Simvastatin:

Partition coefficient: nlog Pow: > 4.07

octanol/water

Magnesium stearate:

Partition coefficient: n-

octanol/water

log Pow: > 4

Mobility in soil

**Components:** 

**Ezetimibe:** 

Distribution among environ-

mental compartments

log Koc: 4.35

Method: OECD Test Guideline 106

Other adverse effects

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS** 

**Disposal methods** 

Waste from residues Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste

handling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

**SECTION 14. TRANSPORT INFORMATION** 

International Regulations

**UNRTDG** 

UN 3077 UN number

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Ezetimibe, Simvastatin)

Class 9

Ш Packing group Labels 9

**IATA-DGR** 

UN/ID No. **UN 3077** 

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

(Ezetimibe, Simvastatin)

Class 9 Ш Packing group

Miscellaneous Labels

Packing instruction (cargo

aircraft)

Packing instruction (passen-

ger aircraft)

Environmentally hazardous **IMDG-Code** 

18/22

956

956

yes



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S

(Ezetimibe, Simvastatin)

Class : 9
Packing group : III
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.

**Domestic regulation** 

**49 CFR** 

UN/ID/NA number : UN 3077

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

(Ezetimibe, Simvastatin)

Class : 9

Packing group : III

Labels : CLASS 9 ERG Code : 171

Marine pollutant : yes(Ezetimibe, Simvastatin)

Remarks : Above applies only to containers over 119 gallons or 450

liters., Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard

classification to facilitate multi-modal transport involving ICAO

(IATA) or IMO.

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.

#### **SECTION 15. REGULATORY INFORMATION**

## **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

## SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

Respiratory or skin sensitization

Specific target organ toxicity (single or repeated exposure)

Skin corrosion or irritation

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.



# **Ezetimibe / Simvastatin Formulation**



Version Revision Date: SDS Number: Date of last issue: 03/23/2020 6.4 10/16/2020 28137-00016 Date of first issue: 11/04/2014

## **US State Regulations**

#### Pennsylvania Right To Know

D-Glucose, 4-O-.beta.-D-galactopyranosyl-, monohydrate

Cellulose

Ezetimibe

Simvastatin

Croscarmellose sodium

64044-51-5
9004-34-6
163222-33-1
79902-63-9
74811-65-7

#### California Prop. 65

WARNING: This product can expose you to chemicals including tert-Butyl-4-methoxyphenol, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

## **California Permissible Exposure Limits for Chemical Contaminants**

Cellulose 9004-34-6 Magnesium stearate 557-04-0

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

AICS : not determined

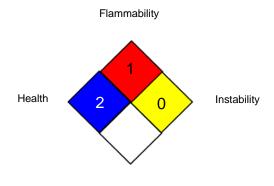
DSL : not determined

IECSC : not determined

#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

## NFPA 704:



Special hazard

## HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-



# **Ezetimibe / Simvastatin Formulation**



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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

its for Air Contaminants

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

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

Sources of key data used to compile the Material 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/

Revision Date : 10/16/2020

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



# **Ezetimibe / Simvastatin Formulation**

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

 6.4
 10/16/2020
 28137-00016
 Date of first issue: 11/04/2014

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.

US / Z8