

Version Revision Date: SDS Number: Date of last issue: 05.03.2019 1.1 03.04.2019 122000017765 Date of first issue: 05.03.2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

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

1.1 Product identifier

Zapp Encore

HSNO Approval Number : HSR100103

ACVM number : A010400

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-: Veterinary medicine

stance/Mixture

1.3 Details of the supplier of the safety data sheet

Company

Bayer New Zealand Limited 3 Argus Place 0627 HILLCREST, AUCKLAND, NEW ZEALAND

NEW ZEALAND Tel.: 0800 652 488 Fax: 0800 229 838

Mail: bhc-md-oeko@bayer.com

1.4 Emergency telephone number

In case of emergency: 0800 734 607 IXOM SH&E Shared services (24hr)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

3.1: Flammable Liquids : Category D

6.3: Skin irritation Category A

6.4: Eye irritation Category A

6.8: Toxic to Reproduction Category A

6.8: Toxic to Reproduction Category C

6.9: Specific Target Organ

Toxicity (Oral)

Category B

9.1: Aquatic toxicity (Acute or :

Chronic)

Category A

9.2: Ecotoxic to soil environ-

ment

Category B

9.3: Ecotoxic to terrestrial

Category B



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vertebrates

9.4: Ecotoxic to terrestrial

invertebrates

Category A

GHS label elements

Hazard pictograms







Signal word : Danger

Hazard statements : H227 Combustible liquid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child. H362 May cause harm to breast-fed children.

H373 May cause damage to organs through prolonged or re-

peated exposure if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

H422 Toxic to the soil environment. H432 Toxic to terrestrial vertebrates. H441 Very toxic to terrestrial invertebrates.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

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

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Dipropylene glycol methyl ether	34590-94-8	>= 50 -< 70
1-Methyl-2-pyrrolidone	872-50-4	>= 30 -< 50
Alsystin / Triflumuron	64628-44-0	>= 2,5 -< 10
Imidacloprid	138261-41-3	>= 2,5 -< 10

SECTION 4. FIRST AID MEASURES



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General advice : Take off all contaminated clothing immediately.

You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24hr emergency

service).

If inhaled : Remove to fresh air.

Call a physician immediately.

In case of skin contact : After contact with skin, wash immediately with plenty of soap

and water.

If skin reactions occur, contact a physician.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

If swallowed : If swallowed, seek medical advice immediately and show this

container or label.

Most important symptoms and effects, both acute and

delayed

No information available.

Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or car-

bon dioxide.

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire-

fighting

Fire may cause evolution of:

Carbon monoxide (CO) Carbon dioxide (CO2)

Specific extinguishing meth-

ods

Prevent fire extinguishing water from contaminating surface

water or the ground water system.

Special protective equipment:

for firefighters

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emer-

gency procedures

Use personal protective equipment.
Use with adequate ventilation.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Methods and materials for

containment and cleaning up

Suppress (knock down) gases/vapours/mists with a water

spray jet.

Soak up with inert absorbent material (e.g. sand, silica gel,



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acid binder, universal binder, sawdust).

Place in closed containers. Label for proper disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

No special protective measures against fire required.

Advice on safe handling : Industrial uses:

Avoid formation of aerosol. Use with local exhaust ventilation.

Avoid contact with skin, eyes and clothing.

Hygiene measures : Cleanliness Guidelines (GMP) for manufacturing of drugs

must be observed!

Conditions for safe storage : For storage suitable stores with adequate product-reception

volume must be used.

During handling local official regulations must be observed in

order to avert impairment of water by the product.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis		
Dipropylene glycol methyl ether	34590-94-8	WES-STEL	150 ppm 909 mg/m3	NZ OEL		
	Further information: Skin absorption					
		WES-TWA	100 ppm 606 mg/m3	NZ OEL		
	Further information: Skin absorption					
		TWA	100 ppm	ACGIH		
		STEL	150 ppm	ACGIH		
1-Methyl-2-pyrrolidone	872-50-4	WES-STEL	75 ppm 309 mg/m3	NZ OEL		
	Further information: Skin absorption					
		WES-TWA	25 ppm 103 mg/m3	NZ OEL		
	Further information: Skin absorption					
Imidacloprid	138261-41-3	SUP	0,7 mg/m ³			

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentration	Basis
1-Methyl-2-pyrrolidone	872-50-4	5-Hydroxy- N-methyl-2- pyrrolidone	Urine	End of shift (As soon as possible after exposure	100 mg/l	ACGIH BEI



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ceases)

Personal protective equipment

Recommended respiratory protection: full mask with filter Respiratory protection

ABEK-ST (ABEK-P3)

Hand protection

Material Hand protection: protective gloves for chemicals made of

Baypren, nitrile rubber or PVC wear

Remarks Breakthrough time not tested; dispose of immediately after

contamination. Advice: The gloves should not be reused.

Eye protection Safety glasses

Protective measures No special safety precautions are required during handling of

pharmaceuticals in their intended finished form (tablets or liquid formulations) by chemists, the hospital's medical staff

or patients.

For the intake of ready for use pharmaceutials or the external use on the skin please read the label and the package leaflet. The personal protective equipment is applicable for the handling of bulk material without packaging and for incidents if an exposure by the active ingredient or hazardous components

can be expected.

Wear suitable protective equipment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

liquid Appearance

Flash point 88 °C

Auto-ignition temperature No data available

No data available Decomposition temperature

Explosive properties No data available

Oxidizing properties No data available

Impact sensitivity No data available

Minimum ignition energy No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity No data available

Chemical stability No data available

Possibility of hazardous reac- : No data available

tions



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Conditions to avoid : No data available

Incompatible materials : Oxidizing agents

Hazardous decomposition

products

Carbon monoxide (CO)
Carbon dioxide (CO2)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate (ATE): 2.609 mg/kg

Method: Calculation method

Components:

Dipropylene glycol methyl ether:

Acute oral toxicity : LD50 (Rat): 5.135 mg/kg

Assessment: No adverse effect has been observed in acute

toxicity tests.

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit): >20ml/kg

Assessment: No adverse effect has been observed in acute

toxicity tests.

1-Methyl-2-pyrrolidone:

Acute oral toxicity : LD50 (Rat): 3.600 mg/kg

Assessment: The component/mixture is minimally toxic after

single ingestion.

Acute dermal toxicity : LD50 (Rabbit): 8.000 mg/kg

LD50 (Rat): > 5.000 mg/kg

Assessment: No adverse effect has been observed in acute

toxicity tests.

Alsystin / Triflumuron:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Assessment: No adverse effect has been observed in acute

toxicity tests.

Acute inhalation toxicity : LC50 (Rat): > 5,03 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg



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Acute toxicity (other routes of :

administration)

LD50 (Rat): > 5.000 mg/kg

Application Route: Intraperitoneal

Imidacloprid:

Acute oral toxicity : LD50 (Rat): 424 mg/kg

Assessment: The component/mixture is toxic after single in-

gestion.

Acute inhalation toxicity : LC50 (Rat): > 5,323 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist/aerosol

Method: OECD 403

Assessment: The component/mixture is minimally toxic after

short term inhalation.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

Assessment: No adverse effect has been observed in acute

toxicity tests.

Skin corrosion/irritation

Components:

1-Methyl-2-pyrrolidone:

Species: Rabbit

Assessment: Causes skin irritation.

Result: Skin irritation

Alsystin / Triflumuron:

Species: Rabbit

Result: No skin irritation

Imidacloprid:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Components:

1-Methyl-2-pyrrolidone:

Species: Rabbit

Result: Irritating to eyes.

Assessment: Causes serious eye irritation.

Alsystin / Triflumuron:

Species: Rabbit

Result: Mild eye irritation

Imidacloprid: Species: Rabbit



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Result: No eye irritation

Respiratory or skin sensitisation

Components:

Dipropylene glycol methyl ether:

Species: Human experience

Result: Does not cause skin sensitisation.

1-Methyl-2-pyrrolidone:

Test Type: Skin sensitisation

Remarks: Did not cause sensitisation on laboratory animals.

Alsystin / Triflumuron:

Test Type: Skin sensitisation

Species: Guinea pig Method: OECD 406

Result: Did not cause sensitisation on laboratory animals.

Imidacloprid:

Test Type: Skin sensitisation

Species: Guinea pig

Method: Magnusson and Kligmann maximization test Result: Did not cause sensitisation on laboratory animals.

Chronic toxicity

Germ cell mutagenicity

Components:

Dipropylene glycol methyl ether:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

1-Methyl-2-pyrrolidone:

Genotoxicity in vitro : Test Type: Bacterial mutagenicity

Result: No indication of mutagenic effects.

Genotoxicity in vivo : Remarks: In vivo tests did not show mutagenic effects

Alsystin / Triflumuron:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Remarks: In vivo tests did not show mutagenic effects

Imidacloprid:

Genotoxicity in vitro : Test Type: Ames test

Result: negative

Remarks: In vitro tests did not show mutagenic effects



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Genotoxicity in vivo : Result: No indication of mutagenic effects., No evidence of a

genotoxic effect.

Reproductive toxicity

Components:

1-Methyl-2-pyrrolidone:

Reproductive toxicity - As-

sessment

Clear evidence of adverse effects on development, based on

animal experiments.

Clear evidence of adverse effects on development, based on

animal experiments.

STOT - single exposure

Components:

1-Methyl-2-pyrrolidone:

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Components:

Imidacloprid:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Dipropylene glycol methyl ether:

Target Organs: Liver, Kidney

Symptoms: Dizziness, Drowsiness, Tiredness

Further information

Components:

1-Methyl-2-pyrrolidone:

Remarks: Dermal absorption possible

Imidacloprid:

Pharmaceutic effects Remarks: Insecticide



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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Dipropylene glycol methyl ether:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 10.000 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 1,919 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Selenastrum Capricornutum (Green algae)): > 969 mg/l

Exposure time: 96 h

Test Type: Growth inhibition

1-Methyl-2-pyrrolidone:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 500 mg/l

Exposure time: 96 h

Test Type: Acute Fish toxicity

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 24 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l

Exposure time: 72 h

Toxicity to microorganisms : EC20: > 600 mg/l

Exposure time: 0,5 h Method: OECD 209

Ecotoxicology Assessment

Acute aquatic toxicity : slightly hazardous to water

Alsystin / Triflumuron:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 320 mg/l

Exposure time: 96 h

Test Type: Acute Fish toxicity

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

Exposure time: 96 h

Test Type: Acute Fish toxicity

LC0 (Lepomis macrochirus (Bluegill sunfish)): > 0,0208 mg/l

Exposure time: 96 h

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0,0016 mg/l

Exposure time: 48 h

Toxicity to algae : IC50 (Desmodesmus subspicatus (green algae)): > 0,025 mg/l



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Exposure time: 72 h

Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge micro-organism): > 10.000 mg/l

Imidacloprid:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 237 mg/l

Exposure time: 96 h

Test Type: Acute Fish toxicity

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 85 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

EC50 (Desmodesmus subspicatus (green algae)): > 10 mg/l

Exposure time: 72 h

Toxicity to microorganisms : EC50 (activated sludge micro-organism): > 10.000 mg/l

Method: OECD 209

Persistence and degradability

Components:

Dipropylene glycol methyl ether:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 75 % Exposure time: 28 d Method: OECD 301F

Result: Readily biodegradable.

Biodegradation: 93 % Exposure time: 13 d Method: OECD 302B

ThOD : 0,00206 mg/g

1-Methyl-2-pyrrolidone:

Biodegradability : Result: Readily biodegradable.

Biodegradation: > 90 % Method: OECD 301E

Biochemical Oxygen De-

mand (BOD)

2 mg/g

Incubation time: 5 d

Chemical Oxygen Demand

(COD)

1.600 mg/l

ThOD : 1.939 mg/g

Imidacloprid:



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Stability in water : Degradation half life: > 1 a (25 °C) pH: 4

Hydrolysis: at25 °C

Degradation half life: > 1 a (25 °C) pH: 7

Hydrolysis: at25 °C

Degradation half life: ca. 1 h (25 °C) pH: 9

Hydrolysis: at25 °C

Bioaccumulative potential

Components:

Dipropylene glycol methyl ether:

Partition coefficient: n-

octanol/water

: log Pow: -0,35

1-Methyl-2-pyrrolidone:

Partition coefficient: n-

octanol/water

log Pow: -0,46

Alsystin / Triflumuron:

Partition coefficient: n-

octanol/water

log Pow: 4,9 (22 °C) Method: OECD 107

Imidacloprid:

Bioaccumulation : Remarks: Low potential for bioaccumulation

Partition coefficient: n-

octanol/water

log Pow: 0,57 (21 °C) Method: OECD 107

Mobility in soil
No data available

Other adverse effects

Product:

Additional ecological infor-

mation

: Do not allow to enter surface waters or groundwater.

Components:

Imidacloprid:

Adsorbed organic bound

halogens (AOX)

Remarks: The product contains organic halogens.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of as hazardous waste in compliance with local and

national regulations.



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Contaminated packaging : Contaminated, empty containers are to be treated in the same

way as the contents.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(IMIDACLOPRID)

Class : 9
Packing group : III
Labels : 9
Packing instruction (cargo : 964

aircraft)

Packing instruction (passen-

964

ger aircraft)

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(IMIDACLOPRID)

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.

National Regulations

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number

HSR100103

HSNO Controls

Approved handler certificate required

HSNO tracking required

Refer to EPA user guide to the HSNO control regulations for further information.

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

NZIoC : On the inventory, or in compliance with the inventory



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SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; 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; CPR - Controlled Products Regulations; 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

Date format : dd.mm.yyyy

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospher-

ic Contaminants

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average NZ OEL / WES-STEL : Workplace Exposure Standard - Short-Term Exposure Limit

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

NZ / EN