

SAFETY DATA SHEET

Advantage® Topical Solution



Version Revision Date: SDS Number: Date of last issue: -
1.0 19.06.2020 122000001165 Date of first issue: 19.06.2020

Section 1: Identification

1.1 Product identifier

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HSNO Approval Number : HSR001870

ACVM number : A007522

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

Elanco New Zealand
88 Shortland Street
1010 AUCKLAND
NEW ZEALAND
+64 0800 352 626
elanco_sds@elancoah.com

1.4 Emergency telephone number

In case of emergency: CHEMTREC International: +1 703-527-3887 (24 hours)
or +64-98010034 (local)

Section 2: Hazard identification

GHS Classification

Flammable Liquids : 3.1D

Acute toxicity (Oral) : 6.1D

Acute toxicity (Dermal) : 6.1E

Eye irritation : 6.4A

Specific Target Organ Toxicity : 6.9B
(Oral)

Aquatic toxicity (Acute or : 9.1A
Chronic)

Ecotoxic to soil environment : 9.2B

Ecotoxic to terrestrial verte- : 9.3B
brates

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Ecotoxic to terrestrial invertebrates : 9.4A

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H227 Combustible liquid.
H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated 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:**
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.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.

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Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

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

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Benzyl alcohol	100-51-6	>= 70 -< 90
Propylene carbonate	108-32-7	>= 10 -< 20
Imidacloprid	138261-41-3	>= 2,5 -< 10

Section 4: First-aid measures

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: Fire-fighting measures

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- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Fire may cause evolution of:
Hydrogen cyanide (hydrocyanic acid)
Hydrogen chloride gas
Nitrogen oxides (NOx)
Carbon oxides
- Specific extinguishing methods : 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 emergency procedures : Use personal protective equipment.
Use with adequate ventilation.
No special precautions required.
- 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, 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.
- Further information on storage stability : Keep in a dry place.
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Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Imidacloprid	138261-41-3	Bayer OES	0,7 mg/m ³	TRGS901

Personal protective equipment

Respiratory protection : Recommended respiratory protection: full mask with filter 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 pharmaceuticals 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

Appearance : liquid

Colour : yellow, brown, clear

Odour : mild

pH : ca. 6,4 (20 °C)
Concentration: 10 g/l

Pour point : -28 - -25 °C

Flash point : 88 °C

Density : 1,098 g/cm³ (20 °C)

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Auto-ignition temperature : 415 °C
Method: DIN 51794

Decomposition temperature : No data available

Flow time : 28,7 s (20 °C)
Cross section: 3 mm
Method: ISO 2431

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 reactions : No data available

Conditions to avoid : No data available

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Hydrogen cyanide (hydrocyanic acid)
Hydrogen chloride gas
Nitrogen oxides (NOx)
Carbon oxides

Section 11: Toxicological information

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 1.742 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2,415 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist/aerosol
Assessment: Harmful if inhaled.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Assessment: May be harmful in contact with skin.

Components:

Benzyl alcohol:

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Acute oral toxicity : LD50 (Rat, male): 1.620 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Propylene carbonate:

Acute oral toxicity : LD50 (Rat): 32.100 mg/kg
Assessment: No adverse effect has been observed in acute toxicity tests.

Acute inhalation toxicity : Exposure time: 8 h
Assessment: No adverse effect has been observed in acute toxicity tests.
Remarks: An LC50/inhalation/8h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 20.000 mg/kg
Assessment: No adverse effect has been observed in acute toxicity tests.

Imidacloprid:

Acute oral toxicity : LD50 (Rat): 424 mg/kg
Method: OECD 401

Acute inhalation toxicity : LC50 (Rat): > 5,323 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist/aerosol
Method: OECD 403

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

Skin corrosion/irritation

Product:

Species : Rabbit
Result : Mild skin irritation

Components:

Benzyl alcohol:

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

Propylene carbonate:

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

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Imidacloprid:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : Eye irritation

Components:

Benzyl alcohol:

Species : Rabbit
Result : Irritation to eyes, reversing within 7 days
Method : OECD 405

Propylene carbonate:

Species : Rabbit
Result : Eye irritation
Method : OECD 405

Imidacloprid:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation

Product:

Test Type : Skin sensitisation
Species : Pig
Result : Did not cause sensitisation on laboratory animals.

Components:

Benzyl alcohol:

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

Propylene carbonate:

Result : Does not cause skin sensitisation.

Imidacloprid:

Test Type : Skin sensitisation
Species : Guinea pig
Method : Magnusson and Kligmann maximization test
Result : Did not cause sensitisation on laboratory animals.

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Chronic toxicity

Germ cell mutagenicity

Components:

Benzyl alcohol:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Genotoxicity in vivo : Result: No indication of mutagenic effects.

Propylene carbonate:

Genotoxicity in vivo : Result: No indication of mutagenic effects.

Imidacloprid:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Remarks: In vitro tests did not show mutagenic effects

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

Carcinogenicity

Components:

Imidacloprid:

Result : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

Imidacloprid:

STOT - single exposure

Components:

Benzyl alcohol:

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

STOT - repeated exposure

Components:

Benzyl alcohol:

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

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Imidacloprid:

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

Repeated dose toxicity

Components:

Benzyl alcohol:

Species : Rat
NOAEL : 400 mg/kg
Exposure time : 90-day

Further information

Product:

Pharmaceutic effects
Remarks : Antiparasitic agent

Components:

Benzyl alcohol:

Remarks : Dermal absorption possible

Remarks : If inhaled:
irritations
Shortness of breath
Cough

Remarks : If swallowed
Vomiting
Nausea
Irritation of mucous membranes in the mouth, throat, gullet and gastro-intestinal tract after swallowing.

Remarks : Systemic toxicity
Headache
Nausea
CNS disorders
Ataxia (uncontrolled movements)
Unconsciousness
cessation of breathing

Imidacloprid:

Pharmaceutic effects
Remarks : Insecticide

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Section 12: Ecological information

Ecotoxicity

Product:

Toxicity to fish : (Lepomis macrochirus (Bluegill sunfish)): , > 105 ppm

Components:

Benzyl alcohol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 10 mg/l
Exposure time: 96 h
Test Type: Acute Fish toxicity

Toxicity to microorganisms : EC50 (Photobacterium phosphoreum): 71,4 mg/l
Exposure time: 0,5 h

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Propylene carbonate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): ca. 5.300 mg/l
Exposure time: 96 h
Test Type: static test
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to microorganisms : EC20 (Activated sludge micro-organism): > 800 mg/l
Exposure time: 0,5 h
Method: ISO 8192

Ecotoxicology Assessment

Acute aquatic toxicity : slightly hazardous to water

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/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h

EC50 (Desmodesmus subspicatus (green algae)): > 10 mg/l
Exposure time: 72 h

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Toxicity to microorganisms : EC50 (Activated sludge micro-organism): > 10.000 mg/l
Method: OECD 209

Persistence and degradability

Components:

BenzyI alcohol:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 92 - 96 %
Exposure time: 28 d
Method: OECD 301 C

Propylene carbonate:

Biodegradability : Result: rapidly biodegradable

BOD/ThOD : 86 %

Dissolved organic carbon (DOC) : 90 - 100 %
Method: ISO 7827

Imidacloprid:

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:

BenzyI alcohol:

Partition coefficient: n-octanol/water : log Pow: 1,05

Propylene carbonate:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: -0,48 (25 °C)

Imidacloprid:

Bioaccumulation : Remarks: Low potential for bioaccumulation

Partition coefficient: n- : log Pow: 0,57 (21 °C)

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octanol/water Method: OECD 107

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Do not allow to enter surface waters or groundwater.

Components:

Propylene carbonate:

Adsorbed organic bound halogens (AOX) : Remarks: Product does not contain any organic halogens.

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.

Contaminated packaging : Contaminated, empty containers are to be treated in the same way as the contents.

Section 14: Transport information

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
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

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Marine pollutant : yes

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

Not applicable for product as supplied.

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

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

HSNO Approval Number

HSR001870

HSW Controls

Approved handler certificate required

HSNO tracking required

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

Montreal Protocol (Ozone Depleting Substances) : Not applicable

Rotterdam Convention (Prior Informed Consent) : Not applicable

Stockholm Convention (Persistent Organic Pollutants) : Not applicable

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

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

Section 16: Other information

Date format : dd.mm.yyyy

Full text of other abbreviations

TRGS901 : TRGS 901, Explanations and Basis for Exposure Limits in the Workplace Air

TRGS901 / Bayer OES : BOES = Bayer Occupational Exposure Standard

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; 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

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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

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.

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