

SAFETY DATA SHEET



1. Identification

Product identifier	Moxidectin and Praziquantel Oral Gel
Other means of identification	
Synonyms	QUEST PLUS * QUEST® PLUS GEL * QUEST PLUS® GEL * QUEST® PLUS (moxidectin/praziquantel) Equine Oral Gel * EQUEST Pramox®
Recommended use	Veterinary product used as anti-worm agent (anthelmintic)
Recommended restrictions	Not for human use

Manufacturer/Importer/Supplier/Distributor information

Company Name (USA)	Zoetis Inc. 10 Sylvan Way Parsippany, New Jersey 07054 (USA)
Rocky Mountain Poison and Drug Center	1-866-531-8896
Product Support/Technical Services	1-888-963-8471
Emergency telephone numbers	CHEMTREC (24 hours): 1-800-424-9300 International CHEMTREC (24 hours): +1-703-527-3887
Company Name (CA)	Zoetis Canada Inc. 16740 Trans-Canada Highway Kirkland, Quebec, H9H 4M7
Emergency telephone number	International CHEMTREC (24 hours): +1-703-527-3887
Contact E-Mail	productsupport@zoetis.com
Product Support	1-800-461-0917

All Safety Data Sheets are available via our Zoetis Canada website at <https://www.zoetis.ca/sds/sds.aspx>

Supplier Not available.

2. Hazard identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity following repeated exposure	Category 2 (central nervous system)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Label elements



Signal word	Warning
Hazard statement	Harmful if swallowed. Causes serious eye irritation. May cause damage to organs (central nervous system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention	Do not breathe mist or vapour. Wash thoroughly after handling. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing.
Response	Get medical advice/attention if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage. IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information None.

Other hazards None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Praziquantel		55268-74-1	12 - 13
Moxidectin		113507-06-5	2
Benzyl alcohol		100-51-6	3 - 8*

Composition comments *Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist. For breathing difficulties, oxygen may be necessary.

Skin contact Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do.

Ingestion Call a physician or poison control centre immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth.

Most important symptoms/effects, acute and delayed Narcosis. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage.

Indication of immediate medical attention and special treatment needed May cause central nervous system effects. Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information IF exposed or concerned: Get medical advice/attention. For personal protection, see section 8 of the SDS. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Ensure adequate ventilation. Ventilate the contaminated area. Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation. Avoid release to the environment. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Use this product with adequate ventilation. Wear appropriate personal protective equipment. Do not breathe mist or vapour. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Keep container tightly closed. Store in a well-ventilated place. @ 15-30°C (59-86°F). Do not allow material to freeze. Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

Zoetis

Components

Type

Value

Moxidectin (CAS 113507-06-5)

TWA

70 µg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Control banding approach

Praziquantel: Zoetis OEB 1 (control exposure to the range of 1000 ug/m3 to 3000 ug/m3)

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section. Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or aerosols. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses or goggles if eye contact is possible.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

Other

Wear suitable protective clothing. Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

Respiratory protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL. If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter.

Thermal hazards

Not applicable.

General hygiene considerations

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

gel, Soft solid.

Physical state

Liquid.

Form

Gel.

Colour

Pale yellow - Orange Pink.

Odour

Not available.

Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	96.0 °C (204.8 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	0.17 hPa estimated
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Flammability class	Combustible IIIB estimated
Oxidising properties	Not oxidising.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Contact with incompatible materials. Keep away from heat, spark, open flames and other sources of ignition. Avoid release to the environment.
Incompatible materials	Avoid contact with oxidisers or reducing agents. Fluorine. Chlorine.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Carbon dioxide, carbon monoxide, and oxides of nitrogen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Prolonged inhalation may be harmful.
Skin contact	May be harmful in contact with skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Benzyl alcohol	Species: Guinea Pig Severity: Moderate
Moxidectin	Species: Rabbit Severity: Mild
Benzyl alcohol	Species: Rabbit Severity: Minimal
Eye contact	Causes serious eye irritation.

Eye contact

Moxidectin

Species: Rabbit
Severity: Moderate

Benzyl alcohol

Species: Rabbit
Severity: Severe**Ingestion**

Harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics

Narcosis. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage.

Information on toxicological effects**Acute toxicity**

Harmful if swallowed.

Product**Species****Test Results**

Moxidectin and Praziquantel Oral Gel

Acute**Dermal**

ATE

> 10000 mg/kg

Oral

ATE

3225 mg/kg

Components**Species****Test Results**

Benzyl alcohol (CAS 100-51-6)

Acute**Dermal**

LD50

Rabbit

2000 mg/kg

Inhalation

LC50

Rat

> 4.178 mg/l
1000 mg/l, 8 Hours**Oral**

LD50

Mouse

1580 mg/kg

Rat

1230 mg/kg

Moxidectin (CAS 113507-06-5)

Acute**Dermal**

LD50

Rat

> 2000 mg/kg

Oral

LD50

Rat

106 mg/kg

Chronic**Oral**

NOEL

Mouse

30 mg/kg/day, 2 years (Not carcinogenic)

Rat

100 mg/kg/day, 2 years (Not carcinogenic)

Subacute**Oral**

LOEL

Rat

100 mg/kg/day, 28 days (Central Nervous System)

NOEL

Mouse

75 mg/kg/day, 28 days (Central nervous system)

Subchronic**Oral**

NOEL

Dog

10 mg/kg/day, 90 days (Central Nervous System)

Components	Species	Test Results
Praziquantel (CAS 55268-74-1)	Rat	50 mg/kg/day, 13 weeks (Central Nervous System)
Acute		
Oral		
LD50	Rat	2840 mg/kg
Chronic		
	Hamster	2 years (Not carcinogenic)
	Rat	2 years (Not carcinogenic)
Skin corrosion/irritation	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.	
Corrosivity		
Moxidectin	Species: Rabbit	Severity: Mild
Serious eye damage/eye irritation	Causes serious eye irritation.	
Eye contact		
Moxidectin	Species: Rabbit	Severity: Moderate
Benzyl alcohol	Species: Rabbit	Severity: Severe
Respiratory or skin sensitisation		
Respiratory sensitisation	Not a respiratory sensitiser.	
Skin sensitisation	This product is not expected to cause skin sensitisation.	
Skin Sensitisation		
Moxidectin	Species: Guinea Pig	Severity: Negative
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Mutagenicity		
Moxidectin	In Vitro Bacterial Mutagenicity (Ames) Result: Negative Species: Salmonella , E. coli	
	In Vitro HGPRT Forward Gene Mutation Assay Result: Negative Species: Chinese Hamster Ovary (CHO) cells	
	In Vivo Cytogenetics Result: Negative Species: Rat Bone Marrow	
	In Vivo Unscheduled DNA Synthesis Result: Negative Species: Rat Hepatocyte	
Praziquantel	Mammalian Cell Mutagenicity Result: Negative Species: Not specified	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects. Based on available data, the classification criteria are not met.	

Developmental effects

Moxidectin 1 mg/kg/day Embryo / Fetal Development, (Maternal toxicity, Not teratogenic)
Result: NOEL
Species: Rabbit
Organ: Oral route

Praziquantel 200 mg/kg/day Prenatal & Postnatal Development, Not Teratogenic
Result: NOEL
Species: Rabbit
Organ: No route specified

300 mg/kg/day Prenatal & Postnatal Development, Not teratogenic
Result: NOEL
Species: Rat
Organ: No route specified

Moxidectin 5 mg/kg/day Embryo / Fetal Development, (Negative)
Result: NOEL
Species: Rat
Organ: Oral route

5 mg/kg/day Embryo / Fetal Development, (Not Teratogenic, Embryotoxicity, Maternal Toxicity)
Result: NOEL
Species: Rat
Organ: Oral route

Reproductivity

Praziquantel 8000 mg/kg/day Reproductive & Fertility, No effects at maximum dose
Result: NOEL
Species: Rat
Organ: No route specified

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure May cause damage to organs (central nervous system) through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

Further information Symptoms may be delayed.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. Avoid release to the environment.

Components		Species	Test Results
Benzyl alcohol (CAS 100-51-6)			
Aquatic			
Algae	EC50	Pseudokirchneriella subcapitata (Green Alga)	500 mg/l, 72 Hours
Crustacea	EC50	Daphnia magna (Water Flea)	230 mg/l, 48 Hours
			66 mg/l, 21 day(s) Toxicity for reproduction
Fish	LC50	Pimephales promelas (Fathead Minnow)	460 mg/l, 96 Hours
Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	10 mg/l, 96 hours

Components	Species	Test Results
Moxidectin (CAS 113507-06-5)		
Aquatic		
Algae	ErC50	Green algae (Selenastrum capricornutum) > 87 ppb, 72 Hours
Crustacea	EC50	Daphnia magna (Water Flea) 30 ppt, 48 Hours
Fish	LC50	Lepomis macrochirus (Bluegill Sunfish) 0.62 ppb, 96 Hours
		Oncorhynchus mykiss (rainbow trout) 0.16 ppb, 96 Hours

Persistence and degradability No data is available on the degradability of this product. The active ingredient in this formulation is expected to bind to soil or sediment.

Biodegradability

Percent Degradation (Aerobic Biodegradation)

Benzyl alcohol 92 - 96 %
Test Duration: 28 days

Bioaccumulative potential See below

Partition coefficient n-octanol / water (log Kow)

Benzyl alcohol 1.1
Moxidectin 4.77

Mobility in soil The active ingredient in this formulation is expected to bind to soil or sediment.

Adsorption

Soil/Sediment Sorption - Log Koc

Moxidectin 4.3 - 4.6

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Avoid release to the environment. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

TDG

UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Moxidectin)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
Special precautions for user Not available.

IATA

UN number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Moxidectin)

Transport hazard class(es)

Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
ERG Code 9L
Special precautions for user Not available.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

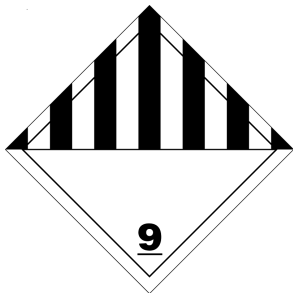
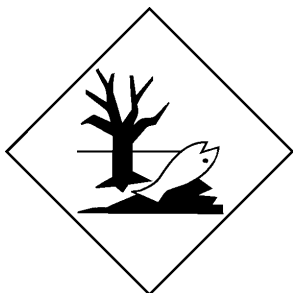
IMDG

UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Moxidectin), MARINE POLLUTANT

Transport hazard class(es)

Class 9
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

IATA; IMDG; TDG**Marine pollutant****General information**

IMDG Regulated Marine Pollutant. As of January 1, 2015, materials offered for transport that are classified for transportation only as Marine Pollutants and which are packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 Liters or less for liquids or having a net mass per single or inner packaging of 5 kilograms or less for solids are NOT subject to ICAO/IATA, IMDG, or ADR transport regulations provided the general packaging requirements of those regulations are met. Refer to ICAO/IATA A197, IMDG 2.10.2.7, ADR SP 375. Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

15. Regulatory information**Canadian regulations**

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 05-June-2017

Revision date 05-July-2022

Version No. 03

List of abbreviations ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

Disclaimer Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information Product and Company Identification: Synonyms
Composition / Information on Ingredients: Disclosure Overrides
Physical and chemical properties: Appearance
Physical and chemical properties: Form
Transport Information: Material Transportation Information
Transport information: General information
Regulatory Information: Other