

SAFETY DATA SHEET



1. Identification

Product identifier	Equest® Plus Tape Long Acting Horse Wormer & Boticide Gel
Other means of identification	
Synonyms	QUEST PLUS * QUEST® PLUS GEL * QUEST PLUS® GEL * QUEST® PLUS (moxidectin/praziquantel) Equine Oral Gel
Recommended use of the chemical and restrictions on use	
Recommended use	Veterinary product used as anti-worm agent (anthelmintic)
Restrictions on use	Not for human use
Details of manufacturer or importer	
Company Name (AU)	Zoetis Australia Pty Ltd ABN 94 156 476 425 Level 6, 5 Rider Boulevard Rhodes NSW 2138 AUSTRALIA
Tel	1800 814 883
Fax	(02) 8876 0444
Email	productsupport.au@zoetis.com
Emergency Phone	1800 814 883 (all hours)
Police and Fire Brigade	Dial 000
If ineffective	Dial Poisons Information Centre (13 1126 from anywhere in Australia)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Serious eye damage/eye irritation	Category 2A
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Label elements, including precautionary statements

Hazard symbol(s)



Exclamation mark Environment

Signal word

Warning

Hazard statement(s)

Harmful if swallowed. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

Wash thoroughly after handling. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing.

Response

IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. 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.

Storage

Store away from incompatible materials.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None known.

Supplemental information None.

3. Composition/information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients (%)
Praziquantel	55268-74-1	12 - 13
Moxidectin Technical Material (MTM)	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

Description of necessary 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.

Personal protection for first-aid responders 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.

Symptoms caused by exposure 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.

Medical attention and special treatment May cause central nervous system effects. Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

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 fire fighters 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.

Hazchem code None.

General fire hazards No unusual fire or explosion hazards noted.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away.

For emergency responders 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. Use personal protection recommended in Section 8 of the SDS.

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.

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. For waste disposal, see section 13 of the SDS.

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 and personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

Zoetis

Components

Moxidectin Technical Material (MTM) (CAS 113507-06-5)

Type

TWA

Value

70 µg/m3

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components

Benzyl alcohol (CAS 100-51-6)

Type

TWA

Value

22 mg/m3

Form

Vapour and aerosol.

5 ppm

Vapour and aerosol.

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, for example personal protective equipment (PPE)

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.

Hygiene measures 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.

Physical state Solid.

Form Solid.

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

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

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 physical and chemical parameters

Explosive properties Not explosive.

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 No dangerous reaction known under conditions of normal use.

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 possible 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 Technical Material (MTM) Species: Rabbit
Severity: Mild

Benzyl alcohol Species: Rabbit
Severity: Minimal

Eye contact Causes serious eye irritation.

Moxidectin Technical Material (MTM) Species: Rabbit
Severity: Moderate

Benzyl alcohol Species: Rabbit
Severity: Severe

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

Symptoms related to exposure 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.

Acute toxicity May be harmful if swallowed.

Product	Species	Test Results
Equest® Plus Tape Long Acting Horse Wormer & Boticide 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 Technical Material (MTM) (CAS 113507-06-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg

Components	Species	Test Results
Oral LD50	Rat	106 mg/kg
<u>Chronic</u> Oral NOEL	Mouse Rat	30 mg/kg/day, 2 years (Not carcinogenic) 100 mg/kg/day, 2 years (Not carcinogenic)
<u>Subacute</u> Oral LOEL	Rat	100 mg/kg/day, 28 days (Central Nervous System)
NOEL	Mouse	75 mg/kg/day, 28 days (Central nervous system)
<u>Subchronic</u> Oral NOEL	Dog Rat	10 mg/kg/day, 90 days (Central Nervous System) 50 mg/kg/day, 13 weeks (Central Nervous System)
Praziquantel (CAS 55268-74-1)		
<u>Acute</u> Oral LD50	Rat	2840 mg/kg
<u>Chronic</u>	Hamster Rat	2 years (Not carcinogenic) 2 years (Not carcinogenic)
Skin corrosion/irritation	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.	
<u>Corrosivity</u> Moxidectin Technical Material (MTM)	Species: Rabbit Severity: Mild	
Serious eye damage/irritation	Causes serious eye irritation.	
<u>Eye contact</u> Moxidectin Technical Material (MTM)	Species: Rabbit Severity: Moderate	
Benzyl alcohol	Species: Rabbit Severity: Severe	
Respiratory or skin sensitisation		
<u>Respiratory sensitisation</u>	Not a respiratory sensitizer.	
<u>Skin sensitisation</u>	This product is not expected to cause skin sensitisation.	
<u>Skin Sensitisation</u> Moxidectin Technical Material (MTM)	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.	
<u>Mutagenicity</u> Moxidectin Technical Material (MTM)	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	

Mutagenicity

Moxidectin Technical Material (MTM)

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

Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Developmental effects

Moxidectin Technical Material (MTM)

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 Technical Material (MTM)

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

Not classified.

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful.

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
Moxidectin Technical Material (MTM) (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 Technical Material (MTM)		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 Technical Material (MTM)		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 methods	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.
Residual waste	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

ADG

Not regulated as dangerous goods.

RID

UN number UN3082
UN proper shipping name Environmentally hazardous substances, liquid, n.o.s. (Moxidectin Technical Material (MTM))
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
Special precautions for user Not available.

IATA

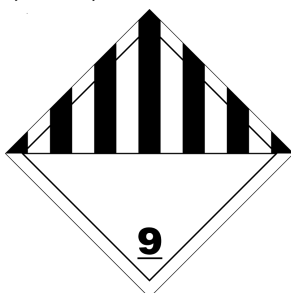
UN number UN3077
UN proper shipping name Environmentally hazardous substances, solid, n.o.s. (Moxidectin Technical Material (MTM), Benzyl Alcohol)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
Special precautions for user Not available.

IMDG

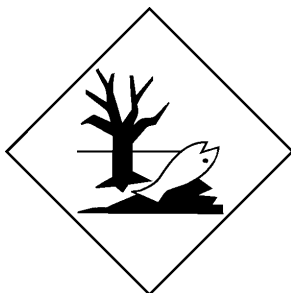
UN number UN3077
UN proper shipping name Environmentally hazardous substances, solid, n.o.s. (Moxidectin Technical Material (MTM), Benzyl Alcohol), MARINE POLLUTANT (Moxidectin, Benzyl Alcohol)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant 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; RID



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

Safety, health and environmental regulations

National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

APVMA No. 55506

Poison Schedule (Product) – Schedule 5

Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix F

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

Moxidectin Technical Material (MTM) (CAS 113507-06-5)

Praziquantel (CAS 55268-74-1)

Australia Medicines & Poisons Schedule 5

Moxidectin Technical Material (MTM) (CAS 113507-06-5)

Australia Medicines & Poisons Schedule 6

Moxidectin Technical Material (MTM) (CAS 113507-06-5)

Australia Medicines & Poisons Schedule 7

Moxidectin Technical Material (MTM) (CAS 113507-06-5)

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)

Benzyl alcohol (CAS 100-51-6)

10000 - 99999 TONNES See the regulation for additional information.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

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	02-November-2016
Revision date	23-November-2021
Key abbreviations or acronyms used	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	This document has undergone significant changes and should be reviewed in its entirety.