

Section 1 - Identification of the Substance/Mixture and Supplier

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Product Identifier:	Cycostat® 66G Coccidiostat
APVMA Approval No:	56688
Other names:	Cycostat Robenidine Hydrochloride 66g/kg
Recommended Use:	For use in the feeds of broiler chickens, for the prevention and control of coccidiosis caused by <i>Eimeria spp</i>
Restrictions on use:	NOT FOR HUMAN USE. For veterinary use only
Emergency Phone:	1800 814 883 (all hours)

Section 2 - Hazards Identification

Appearance: Gray granular solid

Classification of the Substance or Mixture

GHS - Classification

Acute aquatic toxicity: Category 1

Chronic aquatic toxicity: Category 1

Label Elements

Signal Word:

Warning

Hazard Statements:H410 - Very toxic to aquatic life with long lasting effects
May form combustible dust concentrations in air**Precautionary Statements:**P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/Bond container and receiving equipment
P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/container in accordance with all local and national regulations

Other Hazards

Short Term:

Dust may cause irritation

Long Term:

May have the potential to produce effects on the developing fetus.

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

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Section 3 - Composition/Information on Ingredients

Hazardous

Ingredients	CAS No	Conc, %	GHS Classification
Calcium sulfate, dehydrate	10101-41-4	25-35	Not Listed
Robenidine hydrochloride	25875-50-7	6-8	Acute Tox. 4 (H302) Aq. Acute 1 (H400) Aq. Chronic 1 (H410)
Ingredients	CAS No	Conc, %	GHS Classification
Lignosulfonate	8061-52-7	*	Not Listed

Additional Information:

* Proprietary
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

Section 4 - First Aid Measures

Description of First Aid Measures

Eye Contact:	Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.
Skin Contact:	Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.
Ingestion:	Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.
Inhalation:	Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms and Effects of Exposure:	For information on potential signs and symptoms of exposure, See Section 2 – Hazards Identification and/or Section 11 - Toxicological Information.
Medical Conditions Aggravated by Exposure:	Breathing dust may worsen asthma symptoms.

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician:	None
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Section 5 - Fire Fighting Measures

Extinguishing Media: Extinguish fires with CO₂, extinguishing powder, foam, or water.

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Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: Formation of toxic gases is possible during heating or fire.

Fire / Explosion Hazards: During processing, dust may form explosive mixture in air. Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters

During all firefighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

Section 6 - Accidental Release Measures**Personal Precautions, Protective Equipment and Emergency Procedures**

Avoid dust formation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Contain the source of the spill if it is safe to do so. Avoid generating airborne dust. Prevent discharge to drains. Collect wash with a noncombustible absorbent material and transfer to labeled container for treatment and disposal.

Additional Consideration for Large Spills:

Avoid generating airborne dust. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

Section 7 - Handling and Storage**Precautions for Safe Handling**

Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Minimize dust generation and accumulation. Use with adequate ventilation. When handling, use appropriate personal protective equipment (see Section 8). Releases to the environment should be avoided. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store at room temperature in properly labeled containers. Keep away from heat, sparks and flames.

Specific end use(s): No data available

Section 8 - Exposure Controls and Personal Protection**Control Parameters**

Calcium sulfate, dehydrate

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ACGIH Threshold Limit Value (TWA)10 mg/m³

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

Robenidine hydrochloride**Zoetis OEB**OEB 1 (control exposure to the range of 1000ug/m³ to 3000ug/m³)**Exposure Controls****Engineering Controls:**

Engineering controls should be used as the primary means to control exposures. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section.

Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands:

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

Eyes:

Wear safety glasses or goggles if eye contact is possible.

Skin:

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

Respiratory protection:

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. 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.

Section 9 - Physical and Chemical Properties:

Physical State:	Granular solid	Color:	Gray
Odor:	No data available	Odor Threshold:	No data available
Molecular Formula:	Mixture	Molecular Weight:	Mixture

Solvent Solubility:	No data available
Water Solubility:	No data available
Solubility:	Slightly Soluble: Water
pH:	No data available
Melting/Freezing Point (°C):	No data available
Boiling Point (°C):	No data available
Partition Coefficient: (Method, pH, Endpoint, Value)	No data available

Robenidine hydrochloride

Measured 3.3 Log P

Decomposition Temperature (°C):	No data available
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Evaporation Rate (Gram/s):	No data available
Vapor Pressure (kPa):	No data available
Vapor Density (g/ml):	No data available
Relative Density:	No data available
Viscosity:	No data available

Flammability:

Autoignition Temperature (Solid) (°C):	No data available
Flammability (Solids):	No data available
Flash Point (Liquid) (°C):	No data available
Upper Explosive Limits (Liquid) (% by Vol.):	No data available

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Lower Explosive Limits (Liquid) (% by Vol.): No data available

Section 10 - Stability and Reactivity

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions of use.
Possibility of Hazardous Reactions	
Oxidizing Properties:	No data available
Conditions to Avoid:	Keep away from heat, spark, flames and all other sources of ignition. Avoid dispersion as a dust cloud. Dust may form explosive mixture in air. Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers
Hazardous Decomposition Products:	Thermal decomposition products may include carbon monoxide, carbon dioxide and other toxic vapors.

Section 11 - Toxicological Information

Information on Toxicological Effects

General Information: Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation. Routes of exposure: inhalation, eye contact, skin contact

Acute Toxicity: (Species, Route, End Point, Dose)

Robenidine hydrochloride

Rat Oral LD50 390 mg/kg

Rabbit Dermal LD50 > 5000mg/kg

Rat Inhalation LC50 > 5.2mg/L

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Irritation / Sensitization: (Study Type, Species, Severity)

Robenidine hydrochloride

Eye Irritation Rabbit Non-irritating

Eye Irritation Rabbit Non-irritating

Skin Sensitization - M & K Guinea Pig Negative

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

Robenidine hydrochloride

2 Year(s) Dog Oral 13 mg/kg/day NOAEL Liver

84 Week(s) Rat Oral 24 mg/kg/day NOAEL None identified

Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

Robenidine hydrochloride

2 Generation Reproductive Toxicity Rat Oral 500 mg/kg/day NOAEL No effects at maximum dose

Embryo / Fetal Development Rabbit Oral 20 mg/kg/day NOAEL Fetotoxicity

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Robenidine hydrochloride

Bacterial Mutagenicity (Ames) *Salmonella, E. coli* Negative

Chromosome Aberration Chinese Hamster Ovary (CHO) cells Positive at cytotoxic levels

Micronucleus Bone Marrow Negative

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Carcinogen Status: None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

Product Level Toxicity Data

Acute Toxicity Estimate (ATE), >5000 mg/kg
oral

Section 12 - Ecological Information

Environmental Overview: Environmental properties of the formulation have not been investigated. The active ingredient in this formulation is Very toxic to aquatic life with long lasting effects. Releases to the environment should be avoided.

Toxicity:**Aquatic Toxicity: (Species, Method, End Point, Duration, Result)****Robenidine hydrochloride**

<i>Brachydanio rerio</i> (Zebra fish)	OECD	LC50	96 Hours	0.036 mg/L
<i>Daphnia magna</i> (Water Flea)	OECD	EC50	48 Hours	0.061 mg/L
<i>Scenedesmus subspicatus</i> (Green Alga)	OECD	EC50	72 Hours	0.03 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential: No data available

Robenidine hydrochloride

Measured 3.3 Log P

Mobility in Soil: No data available

Section 13 - Disposal Considerations

Disposal: Shake and empty contents into medicated feed. Do not dispose of undiluted chemicals on site. Puncture and bury empty containers in a local authority land fill. If not available bury the container below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways vegetation and roots. Empty containers and product should not be burnt. Dispose of waste in accordance with all applicable local laws and regulations.

Section 14 - Transport Information

ADG: Not regulated for transportation due to Special Provision AU01

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 packaging's 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 IATA, IMDG, or ADG transport regulations provided the general packaging requirements of those regulations are met..

UN number: UN 3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
(robenidine hydrochloride)

Transport hazard class(es): 9

Packing group: III

Environmental Hazard(s): Marine Pollutant

Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

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Section 15 - Regulatory Information

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Calcium sulfate, dehydrate

Australia (AICS): Present

Lignosulfonate

Australia (AICS): Present

Poison Schedule: None allocated.

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Robenidine, is mentioned in the SUSMP.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Data Sources: The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

This version issued: October 2016 and is valid for 5 years from this date.

Supersedes: 19 February 2015

Revision History:

Date of Revision	Reason
19 February 2015	Update to GHS
01 Oct 2016	Remove NOHSC information and formatting changes

Contact Points:

Zoetis	1800 814 883
Police and Fire Brigade:	Dial 000

If ineffective:

**Dial Poisons Information Centre
(13 11 26 from anywhere in Australia)**

THIS SDS SUMMARISES OUR CURRENT AND BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION ABOUT THE PRODUCT DETAILED IN THIS SDS, AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE FOR THE RECOMMENDED USE. EACH USER OF THE PRODUCT MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THEIR OWN

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WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT ZOETIS.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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End of Safety Data Sheet