

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: Chlortetracycline HCl Soluble Powder
Product code: 100435
Synonym(s): Chlortetracycline HCl Soluble Powder

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

General use: Indicated for treatment of various diseases in beef and dairy cattle, calves, turkeys, chickens and swine.
Uses advised against: Not for human use

1.3 Details of the supplier and of the safety data sheet

Manufactured by	Manufactured for
Huvepharma Inc.	Quo Vademus, LLC
3360 Maury Avenue	277 Faison McGowan Road
St. Louis, MO 63116 USA	Kenansville, NC 28349 USA
+1-314-752-8000	+1-910-296-0302

1.4 Emergency telephone number

In the continental USA call CHEMTREC: +1-800-424-9300 (24 hours)
 Outside the continental USA call CHEMTREC: +1-703-527-3887 (24 hours)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture
Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008
 Skin Irritation - Category 2 [H315]
 Sensitizer, Skin - Category 1 [H317]
 Eye Irritation - Category 2A [H319]
 Specific Target Organ Toxicity, Single Exposure - Category 3; STOT SE 3 [H335]

2.2 Label elements

Hazard symbol(s):



Signal word: **Warning**
Hazard statement(s): H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation

Precautionary statements

[Prevention]	P261 - Avoid breathing dust. P264 - Wash hands and other exposed skin areas thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the work place. P280 - Wear protective gloves, protective clothing, eye protection and respiratory protection.
[Response]	P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P304 + P341 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P321 - Specific treatment: Call a POISON CENTER or doctor. Refer to Section 4 of this SDS. P333 + P337 + P312 - If skin irritation or rash occurs or if eye irritation persists: Get medical attention. P362 - Take off contaminated clothing and wash before reuse.
[Storage]	P405 + P403 + P233 - Store locked up in a well-ventilated place. Keep container tightly closed.
[Disposal]	P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

May form combustible dust concentrations in air

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
< 15	Chlortetracycline hydrochloride	64-72-2	200-591-7	-----	H315, H317, H319 H335
< 55	Urea	57-13-6	200-315-5	-----	-----
< 40	Citric acid	77-92-9	201-069-1	-----	H319, H335

There are no additional ingredients present in this product which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product dust causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention if the victim is experiencing breathing difficulty or anaphylaxis.

Eyes: Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do after first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Wash the affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes before reuse. If irritation persists or if rash develops, seek immediate medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures if present. DO NOT induce vomiting unless directed to do so by medical personnel. Vomiting may occur spontaneously. To prevent aspiration of vomit into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: May cause severe eye irritation with redness, itching burning, tearing and pain. May cause mechanical irritation of the cornea and surrounding tissue.

Skin: May cause skin irritation with localized redness and itching. May cause allergic skin reaction to individuals sensitive to tetracyclines. Symptoms include pain redness, swelling, burning, increased sensitivity to light, faint yellowing of skin particularly around hair roots and dry skin. Severe reactions include anaphylaxis, a life-threatening condition that affects multiple body systems.

Inhalation: Dust may cause irritation of nose, throat and lungs. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms may include cough, wheezing, breathing difficulties and anaphylaxis. Serious effects may be delayed following exposure.

Ingestion: Ingestion of large amounts may cause irritation of the digestive tract with nausea, diarrhea, loss of appetite, vomiting, abdominal pain or cramping, fever and rectal itching. May cause allergic reaction if ingested.

Chronic: Persons with pre-existing skin disorders, eye problems or impaired respiratory function may be more susceptible to the effects of this material. Possible hypersensitization to tetracycline or tetracycline derivatives.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to doctor and hospital personnel

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable methods of extinction: Use extinguishing media suitable for the surrounding fire.

Unsuitable methods of extinction: No limitations of extinguishing agents are given for this material.

5.2 Special hazards arising from the substance or mixture

Closed containers may rupture due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: This material is not expected to be an explosive hazard.

5.3 Advice to firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, water contaminated by this material should be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Individuals who are allergic to tetracyclines could have an allergic reaction, possibly severe, to this product and should not be employed in any process in which this product is used. If an allergic reaction occurs, the worker should be removed to the nearest emergency room and the appropriate medical treatment started.

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing and equipment designated in Section 8.2. Ventilate the area. Remove all sources of ignition. NO SMOKING. Clean up spills immediately.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements.

6.3 Methods and materials for containment and cleaning up

Approach spill from upwind direction. DO NOT FLUSH SPILLS DOWN THE DRAIN. Cover drains and contain spill. Minimize dust generation during cleanup. Carefully collect material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Clean contaminated area with soap and water. Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of material via a licensed pharmaceutical waste contractor and in accordance with FDA and DEA regulations..

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

Individuals who are allergic to tetracyclines could have an allergic reaction, possibly severe, to this product and should not be employed in any process in which this product is used. If an allergic reaction occurs, the worker should be removed to the nearest emergency room and the appropriate medical treatment started.

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale dust. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes thoroughly before reuse. Avoid dust generation and accumulation.

Advice on protection against fire and explosion

This material is not expected to be a fire or explosion hazard.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Separate from oxidizing materials. Protect from sunlight. Transfer only to approved containers having correct labeling. Keep container tightly closed when not in use. Protect containers from physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers are hazardous when empty as they contain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Keep locked up and out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear safety glasses with unperforated side shields or chemical splash goggles during use.

Hand protection: Wear Nitrile gloves or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: None required with normal use. Wear an approved filter type dust respirator when handling this product. Always use an approved respirator when vapor/aerosols exceed permissible exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a half-mask respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.



SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Yellow, free-flowing powder
Odor	Characteristic, faint
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	1.8 - 3.2 (0.75 g/100 ml water)
Melting Point	No data available
Boiling Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Flash Point	Not applicable
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	No data available
Upper Explosive Limit (UEL)	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	No data available
Viscosity	No data available
Solubility in Water	Complete
Partition Coefficient (n-octanol/water)	No data available
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	No data available

9.2 Other Data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported during normal conditions of handling and use.

10.2 Chemical Stability

This material is stable under recommended conditions of storage and handling. Light sensitive material.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Elevated temperatures, contact with incompatible materials, exposure to light, dust generation and accumulation

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong reducing agents, strong bases, nitrates and hypochlorites

10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, nitrogen oxides (NO_x), ammonia, Biuret and hydrogen chloride.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

LD₅₀, rat: 10,300 mg/kg [Chlortetracycline HCl]

Acute inhalation toxicity

No data available

Acute dermal toxicity

No data available

Skin irritation

May cause skin irritation.

Eye irritation

May cause serious eye irritation.

Sensitization

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity

No data available

Germ cell mutagenicity

No data available

Reproductive toxicity

No data available

Specific organ toxicity - single exposure

May cause respiratory irritation.

Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

Individuals who are allergic to tetracyclines could have an allergic reaction, possibly severe, to this product. If an allergic reaction occurs, the worker should be removed to the nearest emergency room and the appropriate medical treatment started. Overexposure to chlortetracycline may cause reproductive disorders.

This product contains no substances present at levels greater than or equal to the 0.1% threshold (de minimis) that are identified as a probable, possible, potential or confirmed carcinogens by ACGIH, IARC, NTP or OSHA.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity**

Large spills or discharges of this material may be harmful to aquatic life and the environment.

12.2 Persistence and degradability

This substance is expected to be readily biodegradable.

12.3 Bioaccumulation potential

This material is not expected to bioaccumulate.

12.4 Mobility in soil

This product moves readily through soil.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other effects**Additional ecological information**

Do not allow material to enter surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way via a licensed pharmaceutical waste contractor and in accordance with FDA and DEA regulations. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

RCRA F-Series: No listings above the reportable threshold (de minimis)

RCRA U-Series: No listings above the reportable threshold (de minimis)

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

USA DOT (Ground Transportation) - Bulk and Non-bulk Not regulated for transport

IMO/IMDG (Water Transportation)

Not regulated for transport (Consult IMO regulations before transporting ocean bulk.)

ICAO/IATA (Air Transportation)

Not regulated for transport

RID/ADR (Rail Transportation)

Not regulated for transport

SECTION 15 - REGULATORY INFORMATION

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

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: This product is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: Chlortetracycline HCl (CAS #64-72-2) is exempt from listing on the Toxic Substance Control Act (TSCA) Inventory as it is intended for use in applications regulated by the Food and Drug Administration in the United States. It is not subject to TSCA 12(b) Export Notification

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2)) and Chemical Code Number
No listings

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number: No listings

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals: No listings

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories

Causes skin irritation and serious eye irritation

May cause an allergic skin reaction

May cause respiratory irritation

SARA 313 Information: None of the chemicals in this product are subject to the reporting levels established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: None of the components of this product exceed the threshold (de minimis) reporting levels established by these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the components of this product exceed the threshold (de minimis) reporting levels established by these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): None of the components of this product exceed the threshold (de minimis) reporting levels for hazardous wastes established by CERCLA.

Clean Air Act (CAA)

This product does not contain any Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain Class 1 ozone depleters.

This product does not contain Class 2 ozone depleters.

Clean Water Act (CWA)

This product does not contain Hazardous Substances

This product does not contain Priority Pollutants.

This product does not contain Toxic Pollutants.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

This product contains no chemical(s) known to the state of California to cause cancer birth defects or reproductive harm in concentrations that exceed the threshold (de minimis) reporting levels established under Proposition 65.

Other U.S. State Inventories

None of the components of this product exceed the threshold (de minimis) reporting levels established by any State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists.

Canada

WHMIS Hazard Classification: No data available

Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): No data available

Global Chemical Inventory Lists

Country	Inventory Name	Listed
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	No
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes

China	Inventory of Existing Chemical Substances in China (IECSC)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (KECI)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*Yes - All components of this product comply with the inventory requirements administered by the governing country.
No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	F

F = safety glasses, gloves, apron & dust mask

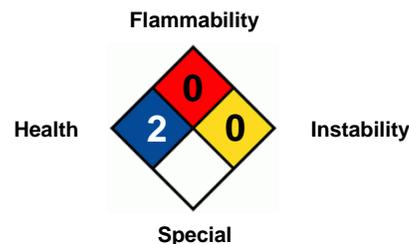
HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe
* = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists	LD₅₀	Lowest Lethal Dose
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)	mppcf	Millions of Particles Per Cubic Foot
CAS	Chemical Abstract Services	NA	North America
CFR	Code of Federal Regulations	NAERG	North American Emergency Response Guide Book
COC	Cleveland Open Cup	NIOSH	National Institute for Occupational Safety & Health
DOT	Department of Transportation	NTP	National Toxicology Program
EC₅₀	Half maximal effective concentration	OSHA	Occupational Safety and Health Administration
EMS	Emergency Response Procedures for Ships Carrying	PBT	Persistent, Bioaccumulating and Toxic
EPA	Environmental Protection Agency	PEL	Permissible exposure limit
ErC₅₀	Reduction of Growth Rate	PMCC	Pensky-Martens Closed Cup
ERG	Emergency Response Guide Book	ppm	Parts Per Million
FDA	Food and Drug Administration	RCRA	Resource Conservation and Recovery Act
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	RID	Dangerous Goods by Rail
HCS	Hazard Communication Standard	RQ	Reportable Quantity
IARC	International Agency for Research on Cancer	TCC/Tag	Tagliabue Closed Cup
IATA	International Air Transport Association	TLV	Threshold Limit Value
IC₅₀	Half Maximal Inhibitory Concentration	TSCA	Toxic Substance Control Act
ICAO	International Civil Aviation Organization	TWA	Time-weighted Average
IDLH	Immediately Dangerous to Life and Health	UN	United Nations
IMDG	International Maritime Dangerous Goods	VOC	Volatile Organic Compounds
IMO	International Maritime Organization	vPvB	Very Persistent and Very Bioaccumulating
LC₅₀	50% Lethal Concentration	WHMIS	Workplace Hazardous Materials Information System
LD₅₀	50% Lethal Dose		

DISCLAIMER

The information herein is given in good faith and is believed to be accurate and correct; however, no warranty, expressed or implied, is made. Quo Vademus, LLC assumes no responsibility for personal injury or property damage that may arise from the use of this material since the conditions of handling and use are beyond our control. It is the responsibility of the user to comply with all Federal, State and local laws and regulations regarding use of this product. Vendees or users assume all risks associated with the use of this material.

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Supersedes SDS: 10 February 2016, Version 2

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