

SAFETY DATA SHEET



Ceton Ketosis and Pregnancy Toxaemia Treatment

Section 1. Identification

Product identifier : Ceton Ketosis and Pregnancy Toxaemia Treatment
Product type : Liquid.

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

Identified uses
Veterinary product for the treatment of ketosis and pregnancy toxaemia
Uses advised against
Not for human use

Supplier's details : Zoetis Australia Pty Ltd
ABN 94 156 476 425
Level 6, 5 Rider Boulevard
Rhodes NSW 2138 AUSTRALIA
1800 814 883

Emergency telephone number (with hours of operation) : 1800 814 883 (all hours)
Fax: (02) 8876 0444
Email: productsupport.au@zoetis.com
Police & Fire Brigade: Dial 000
If Ineffective: Dial Poisons Information Centre (13 11 26 from anywhere in Australia)

Section 2. Hazard(s) identification

Classification of the substance or mixture : SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : **WARNING**
Hazard statements : **Causes serious eye irritation.**

Precautionary statements

General : Read carefully and follow all instructions. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention : Wear eye or face protection. Wash thoroughly after handling.
Response : 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 or attention.
Storage : Not applicable.
Disposal : Not applicable.
Supplemental label elements : Not applicable.

Other hazards which do not result in classification : None known.

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Ingredient name	% (w/w)	Identifiers
propane-1,2-diol	≥75 - ≤90	CAS: 57-55-6
choline chloride	≤10	CAS: 67-48-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Propylene glycol is primarily a CNS depressant in large doses and may cause hypoglycaemia, lactic acidosis and seizures. Behavioural changes. Narcosis. Decrease in motor functions. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects. May cause drowsiness or dizziness. Direct contact with eyes may cause temporary irritation. Mild skin irritation. Headache. Nausea, vomiting. Severe eye irritation.

Indication of immediate medical attention and special treatment needed, if necessary

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

No specific treatment.

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 4. First aid measures

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:, carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Keep unnecessary personnel away.

For emergency responders : Keep unnecessary personnel away. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 30°C (86°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
propane-1,2-diol	Safe Work Australia (Australia, 1/2024) TWA 8 hours: 150 ppm. Form: Vapor and particulates. TWA 8 hours: 474 mg/m ³ . Form: Vapor and particulates. TWA 8 hours: 10 mg/m ³ . Form: Particulate.

Biological exposure indices

No exposure indices known.

Control Banding Approach

Not available.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 8. Exposure controls and personal protection

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Colour** : Clear. Pink to Mauve
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : 6.5 to 8
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: Not applicable.
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapour pressure** : Not available.
- Relative vapour density** : Not available.
- Relative density** : 1.04 to 1.05
- Solubility in water** : Not available.
- Miscible with water** : Yes.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

- Pmax** : Not available.

Section 9. Physical and chemical properties and safety characteristics

Kst	: Not available.
Min. Ignition Temperature (Dust)	: Not available.
Minimum ignition energy (MIE) - dust cloud	: Not available.
Median particle size	: Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Remarks	: Reactive or incompatible with the following materials: oxidising materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

propane-1,2-diol

Result

Rabbit - Dermal - LD50

20800 mg/kg

Mouse - Oral - LD50

24900 mg/kg

Rat - Oral - LD50

22000 mg/kg

Rat - Oral - LD50

20 g/kg

Rabbit - Dermal - LD50

20800 mg/kg

Rat - Oral - LD50

3400 mg/kg

Toxic effects: Eye - Chromodacryorrhea Behavioral - Excitement Lung, Thorax, or Respiration - Respiratory depression

choline chloride

Conclusion/Summary[Product] : Not applicable.

Skin corrosion/irritation

Product/ingredient name

Result

Section 11. Toxicological information

propane-1,2-diol

Child - Skin - Moderate irritant

Duration of treatment/exposure: 96 hours

Amount/concentration applied: 30 % C

Human - Skin - Mild irritant

Duration of treatment/exposure: 168 hours

Amount/concentration applied: 500 mg

Human - Skin - Moderate irritant

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 104 mg l

Woman - Skin - Mild irritant

Duration of treatment/exposure: 96 hours

Amount/concentration applied: 30 %

Conclusion/Summary[Product] : Not applicable.

Serious eye damage/eye irritation

Product/ingredient name

propane-1,2-diol

Result

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 100 mg

Conclusion/Summary[Product] : Causes serious eye irritation.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary[Product] : Not applicable.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary[Product] : Not applicable.

Respiratory

Conclusion/Summary[Product] : Not applicable.

Specific target organ toxicity (single exposure)

Not applicable.

Specific target organ toxicity (repeated exposure)

Not applicable.

Aspiration hazard

Not applicable.

Information on likely routes of exposure

Not available.

Section 11. Toxicological information

Potential acute health effects

Propylene glycol is primarily a CNS depressant in large doses and may cause hypoglycaemia, lactic acidosis and seizures. Behavioural changes. Narcosis. Decrease in motor functions. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects. May cause drowsiness or dizziness. Direct contact with eyes may cause temporary irritation. Mild skin irritation. Headache. Nausea, vomiting. Severe eye irritation.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Germ cell mutagenicity

Not available.

Conclusion/Summary[Product] : No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary[Product] : No known significant effects or critical hazards.

Reproductive toxicity

Not available.

Conclusion/Summary[Product] : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
propane-1,2-diol	20000	20800	N/A	N/A	N/A
choline chloride	3400	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

propane-1,2-diol

Result

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia*

Age: <24 hours

1020 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: ≤7 days

710 mg/l [96 hours]

Effect: Mortality

Section 12. Ecological information

choline chloride

Acute - EC50 - Marine water

Daphnia - Water flea - *Daphnia magna*

Age: <24 hours

>320 mg/l [48 hours]

Effect: Intoxication

Conclusion/Summary[Product] : No known significant effects or critical hazards.

Persistence and degradability

Not available.

Conclusion/Summary[Product] : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
propane-1,2-diol	-1.07	-	Low
choline chloride	-5.16	-	Low

Mobility in soil

Soil/water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : 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. The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Section 14. Transport information

	ADG	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Special precautions for user : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information**Standard for the Uniform Scheduling of Medicines and Poisons**

Not regulated.

Australian Pesticides and Veterinary Medicines Authority

APVMA No. 36277

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.
Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

Section 15. Regulatory information

New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: All components are listed or exempted.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: All components are listed or exempted.

Section 16. Any other relevant information

History

Date of issue/Date of revision	: 11/06/2025
Date of previous issue	: This SDS replaces version: issued 17 June 2024
Version	: 3

Key to abbreviations

: ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SGG = Segregation Group
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Expert judgment

References : Not available.

Notice to reader

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