

# SAFETY DATA SHEET



## 1. Identification

<b>Product identifier</b>	<b>LUTALYSE® Injectable Prostaglandin</b>	
<b>Other means of identification</b>		
<b>Synonyms</b>	LUTALYSE * DINOLYTIC * Dinoprost tromethamine sterile solution * Lutalyse/Dinolytic 5 mg/ml Sterile Injectable Solution * Lutalyse 5 * Dinolytic 5	
<b>Recommended use of the chemical and restrictions on use</b>		
<b>Recommended use</b>	Veterinary product used for estrus synchronization	
<b>Restrictions on use</b>	Not for human use	
<b>Details of manufacturer or importer</b>		
<b>Company Name (AU)</b>	Zoetis Australia Pty Ltd ABN 94 156 476 425 Level 6, 5 Rider Boulevard Rhodes NSW 2138 AUSTRALIA	
<b>Tel</b>	1800 814 883	
<b>Fax</b>	(02) 8876 0444	
<b>Email</b>	australia.animalhealth@zoetis.com	
<b>Emergency Phone</b>	1800 814 883 (all hours)	
<b>Police and Fire Brigade</b>	Dial 000	
<b>If ineffective</b>	Dial Poisons Information Centre (13 1126 from anywhere in Australia)	

## 2. Hazard(s) identification

### Classification of the hazardous chemical

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Reproductive toxicity	Category 1B
<b>Environmental hazards</b>	Not classified.	

### Label elements, including precautionary statements

#### Hazard symbol(s)



Health  
hazard

<b>Signal word</b>	Danger
<b>Hazard Statement(s)</b>	May damage fertility or the unborn child.
<b>Precautionary Statement(s)</b>	

<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
<b>Response</b>	IF exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

<b>Other hazards which do not result in classification</b>	None known.
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**Supplemental information** May cause eye irritation. May cause skin irritation. May be absorbed through the skin and cause systemic effects. Systemic exposure may affect reproductive hormone regulation and thus affect fertility and maintenance of pregnancy. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Women of childbearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. Dinoprost tromethamine is readily absorbed through the skin and can cause abortion and/or bronchospasms.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Benzyl alcohol	100-51-6	<5
Dinoprost Tromethamine	38562-01-5	5 mg/ml
Water	7732-18-5	

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	If inhaled, remove to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician or poison control centre immediately.
<b>Skin contact</b>	In the case of skin contact, immediately wash the skin with plenty of soap and water. In the event of accidental self injection or needle stick injury, wash the injury thoroughly with clean running water. Get medical attention immediately. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Continue rinsing. Call a physician or poison control centre immediately.
<b>Ingestion</b>	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Rinse mouth. Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Personal protection for first-aid responders** For personal protection, see section 8 of the SDS. IF exposed or concerned: Get medical advice/attention. 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** Inhalation may cause difficulty breathing, chest tightness, and respiratory irritation with coughing, wheezing, and sputum generation. Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. May cause skin irritation. May cause redness and pain. Individuals sensitive to this chemical or other materials in its chemical class may develop allergic reactions. May cause reproductive effects. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea. Breathing mist or vapour may worsen asthma symptoms.

**Medical attention and special treatment** Monitor respiratory, cardiac and reproductive systems. Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**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. Local authorities should be advised if significant spillages cannot be contained.

**For emergency responders** Keep unnecessary personnel away. Ensure adequate ventilation. Ventilate the contaminated area. Do not breathe mist or vapour. Do not get in eyes, on skin, or on 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** Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** Ensure adequate ventilation. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear personal protective equipment. Avoid release to the environment. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading. 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

Do not handle until all safety precautions have been read and understood. Women of childbearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. Dinoprost tromethamine is readily absorbed through the skin and can cause abortion and/or bronchospasms. Accidental spillage on the skin should be washed off immediately with soap and water. Use this product with adequate ventilation. Do not breathe vapours or spray mist. Do not get in eyes, on skin, on clothing. Avoid prolonged exposure. Avoid accidental injection. When using, do not eat, drink or smoke. Wear personal protective equipment. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Keep containers tightly closed in a dry, cool and well-ventilated place. @ 20 - 25C / 68 - 77F. Do not allow material to freeze. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

## 8. Exposure controls and personal protection

**Control parameters** Follow standard monitoring procedures.

### Occupational exposure limits

#### Zoetis

#### Components

Dinoprost Tromethamine  
(CAS 38562-01-5)

#### Type

TWA

#### Value

1 µg/m<sup>3</sup>

### Biological limit values

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

### Exposure guidelines

OEL Additional Information: Dinoprost Tromethamine 15 minute STEL (Short-Term Exposure Limit) = 4 µg/m<sup>3</sup>.

### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, for example personal protective equipment (PPE)

#### Eye/face protection

If contact is likely, safety glasses with side shields are recommended.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Impervious gloves.

##### 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** In case of insufficient ventilation, wear suitable respiratory equipment. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. 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. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

**Thermal hazards** Not applicable.

**Hygiene measures** Observe any medical surveillance requirements. 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

**Physical state** Liquid.

**Form** Liquid.

**Colour** Clear.

**Odour** Not available.

**Odour threshold** Not available.

**pH** 7.8 - 8.2

**Melting point/freezing point** 0 °C (32 °F)

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**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** Not available.

**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.

**Specific gravity** 0.996 - 1.004

## 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.

<b>Conditions to avoid</b>	Contact with incompatible materials. Keep away from heat, spark, open flames and other sources of ignition.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Nitrogen oxides (NOx). Carbon oxides.

## 11. Toxicological information

### Information on possible routes of exposure

<b>Inhalation</b>	Harmful if inhaled. Breathing mist or vapour may worsen asthma symptoms.
<b>Skin contact</b>	Prolonged skin contact may cause temporary irritation. May be absorbed through the skin and cause systemic effects.

Benzyl alcohol	Species: Guinea Pig Severity: Moderate
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	Species: Rabbit Severity: Minimal
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Dinoprost Tromethamine	Species: Rat Severity: No effect
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<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
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Benzyl alcohol	Species: Rabbit Severity: Severe
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Dinoprost Tromethamine	Species: Rabbit Severity: Severe
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<b>Ingestion</b>	May be harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
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**Symptoms related to exposure** Inhalation may cause difficulty breathing, chest tightness, and respiratory irritation with coughing, wheezing, and sputum generation. May cause eye irritation. Exposure may cause temporary irritation, redness, or discomfort. Prolonged skin contact may cause temporary irritation. May cause redness and pain. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Systemic exposure may affect reproductive hormone regulation and thus affect fertility and maintenance of pregnancy. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea. Breathing mist or vapour may worsen asthma symptoms.

### Acute toxicity

Components	Species	Test results
Benzyl alcohol (CAS 100-51-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 4.178 mg/l 1000 mg/l, 8 Hours
<b>Oral</b>		
LD50	Mouse	1580 mg/kg
	Rat	1230 mg/kg
Dinoprost Tromethamine (CAS 38562-01-5)		
<b>Acute</b>		
<b>Intravenous</b>		
LD50	Mouse	331 mg/kg
<b>Oral</b>		
LD50	Mouse	711 mg/kg
	Rat	665 mg/kg

Components	Species	Test results
<b>Other</b> LD50	Rat	101 mg/kg (Para-periosteal)
<b>Chronic</b> <b>Intraperitoneal</b> LOAEL	Rat	32.8 mg/kg, 6 months (Target organ(s): Male reproductive system)
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Corrosivity</b> Dinoprost Tromethamine		Species: Rat Severity: No effect
<b>Serious eye damage/irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Eye contact</b> Benzyl alcohol		Species: Rabbit Severity: Severe
	Dinoprost Tromethamine	Species: Rabbit Severity: Severe
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.	
<b>Skin sensitisation</b>	This product is not expected to cause skin sensitisation.	
<b>Skin sensitisation</b> Dinoprost Tromethamine		GPMT Species: Guinea Pig Severity: negative
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Mutagenicity</b> Dinoprost Tromethamine		Bacterial Mutagenicity (Ames) Result: negative Species: Salmonella  Direct DNA Interaction Result: negative
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Reproductive toxicity</b>	May damage fertility or the unborn child. Repeat-dose studies in animals have shown a potential to cause adverse effects on testes and developing fetus.	
<b>Developmental effects</b> Dinoprost Tromethamine		0.5 mg/kg/day Embryo / Fetal Development, teratogenic Result: LOAEL Species: Rat Organ: Subcutaneous  1 - 3 mg/kg/day Embryo / Fetal Development, Fetotoxicity Result: LOAEL Species: Rat
<b>Reproductivity</b> Dinoprost Tromethamine		1 - 3 mg/kg/day Reproductive & Fertility, Fertility Result: NOAEL Species: Rat
<b>Specific target organ toxicity - single exposure</b>	May cause irritation to the respiratory system.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	

<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.
<b>Other information</b>	Women of childbearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. Dinoprost tromethamine is readily absorbed through the skin and can cause abortion and/or bronchospasms.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

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

### Persistence and degradability

#### Bioaccumulative potential

**Partition coefficient  
n-octanol / water (log Kow)**  
Dinoprost Tromethamine

-0.46, Predicted Log D @ pH 7.4

#### Mobility in soil

No data available for this product.

#### 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. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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. Contract with a disposal operator licensed by the Law on Disposal and Cleaning.

### 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 (see: Disposal instructions).

### Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### ADG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

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

## 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. 38700

Poison Schedule (Product) - Schedule 4

This SDS replaces version: Issued 30 April 2015

### High Volume Industrial Chemicals (HVIC)

Benzyl alcohol (CAS 100-51-6) 10000 - 99999 TONNES See the regulation for additional information.

Water (CAS 7732-18-5) 1000 - 9999 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 Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
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)	Yes
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



Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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

<b>Issue date</b>	06-December-2016
<b>Disclaimer</b>	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.
<b>Revision information</b>	Product and Company Identification: Synonyms Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties GHS: Qualifiers