
SAFETY DATA SHEET

Section 1: IDENTIFICATION of CHEMICAL PRODUCT and COMPANY

Product Identifier:	Lectade Oral Rehydration Therapy
Product Code:	500940 (Duo sachets, 12s)
Recommended Use:	A non-antibiotic supportive treatment for scours and dehydration (due to nutritional, bacterial or viral causes) in calves, pigs, lambs, dogs, cats and foals.
Restrictions on Use:	For animal treatment only.
Company Identification:	Jurox Pty Limited
Address:	85 Gardiner Street, Rutherford, NSW 2320, Australia
Email:	jenq@jurox.com.au
Customer Centre:	1800 023 312
National Poisons Information Centre:	13 1126 (Australia-wide)
Emergency Telephone Number:	1800 023 312 (9am – 5pm, Monday to Friday)

Section 2: HAZARDS IDENTIFICATION

Hazard Classifications: This product has been assessed according to GHS and is classified as non-hazardous.

Signal word: None.

GHS Pictograms: None.

Precautionary statements: None.

Section 3: COMPOSITION / INFORMATION on INGREDIENTS**Duo sachets:**

INGREDIENT	CAS No.	CONTENT
Section A		
Sodium chloride	7647-14-5	44%
Glycine	56-40-6	32%
Potassium phosphate monobasic	7778-77-0	21%
Citric acid monohydrate	5949-29-1	2%
Potassium citrate	866-84-2	0.6%
Section B		
Glucose monohydrate	14431-43-7	100%

When one Duo Sachet is reconstituted in 2 L of water:

INGREDIENT	CAS No.	CONTENT
Glucose monohydrate	14431-43-7	2.2%
Sodium chloride	7647-14-5	< 1%
Glycine	56-40-6	< 1%
Potassium phosphate monobasic	7778-77-0	< 1%
Citric acid monohydrate	5949-29-1	< 0.1%
Potassium citrate	866-84-2	< 0.1%

Section 4: FIRST AID MEASURES

General Information: Consult the National Poisons Centre on 13 1126 or a doctor immediately in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If medical advice/attention is needed, have this SDS, product container or label at hand.

Symptoms and Effects of Exposure: None known.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Ingestion: If swallowed do NOT induce vomiting. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Skin: If skin contact occurs, wash affected area thoroughly with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention.

Eye: If eye contact occurs, rinse cautiously with water for at least 20 minutes. Continue rinsing. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. If eye irritation occurs, get medical advice/attention.

Recommended First Aid Facilities: Ready access to running water and soap is required.

Advice to Doctor: None.

Section 5: FIRE FIGHTING MEASURES

Flash Point: No data. Not flammable. Not combustible.

Hazardous Combustion Products: If involved in a fire, may emit noxious and irritant fumes.

Extinguishing Media: There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

Protective Equipment: Protective gloves and breathing apparatus.

HAZCHEM Code: None specified.

Section 6: ACCIDENTAL RELEASE MEASURES

Spills and Disposal: For small spills, clean up spilled product then wipe area and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. For large spills, exclude non-essential people from the area. Prevent spillage from entering drains or water courses and call emergency services.

Protective Clothing: For appropriate personal protective equipment see section 8.

Environmental Precautions: Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

Section 7: HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and inhalation of dust. Use personal protective equipment as required. Do not eat, drink or smoke while handling product.

Storage: Keep out of reach of children. Store below 25°C (air conditioning), away from foodstuffs, in a dry place.

Other Information: Always read the label before use. See label for further information on handling and storage.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

This SDS describes personal protective measures relating to long term industrial and manufacturing exposure and emergency situations, such as accidents and spills. See product label for personal protective measures during normal use of the marketed product.

Exposure Limits: An exposure limit for the mixture has not been established. No exposure standards for the ingredients are available. Temporary Emergency Exposure Limits (TEELs) for the ingredients are as follows:

INGREDIENT	TEEL-1	TEEL-2	TEEL-3
Glucose monohydrate	77 mg/m ³	850 mg/m ³	5100 mg/m ³
Sodium chloride	11 mg/m ³	120 mg/m ³	1100 mg/m ³
Glycine	2.2 mg/m ³	25 mg/m ³	1600 mg/m ³
Potassium phosphate monobasic	29 mg/m ³	320 mg/m ³	1900 mg/m ³
Citric acid monohydrate	0.37 mg/m ³	4 mg/m ³	590 mg/m ³
Potassium citrate	2.1 mg/m ³	23 mg/m ³	140 mg/m ³

Engineering Controls: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

Personal Protective Equipment (PPE):

Eye protection: Protective glasses or goggles are recommended when bulk quantities of this product are being handled.

Skin protection: When handling bulk quantities, prevent skin contact by wearing chemical protective gloves e.g. PVC.

Respiratory protection: Not required for the normal use of this product.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, odourless, granular powder	Upper / Lower Flammability or Explosive Limits:	Not available
Odour:	Not available	Vapour Pressure:	Not applicable
Odour Threshold:	Not available	Vapour Density:	Not applicable
pH:	Not applicable	Relative Density:	Not applicable
Melting Point / Freezing point:	Not available	Solubility in Water:	Disintegrates in water
Initial Boiling Point and Boiling Range:	Not applicable	Partition Coefficient:	Not available
Flashpoint:	Not available	Auto-Ignition Temperature:	Not available
Evaporation Rate:	Not applicable	Decomposition Temperature:	Not applicable
		Viscosity:	Not applicable

Section 10: STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or polymerise under normal storage conditions.

Stability: When stored appropriately this product should show no significant degradation within the expiry period shown on the label.

Conditions to Avoid: Damp/humid environments, elevated temperatures and/or direct sunlight.

Incompatible Materials: Oxidising agents.

Hazardous Decomposition Products: No data available.

Section 11: TOXICOLOGICAL INFORMATION

Signs & Symptoms of Exposure: No data.

Medical Conditions Generally Aggravated by Exposure: None known.

Acute Toxicity:

Ingestion: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be acutely toxic by the oral route.

Glucose: Oral LD₅₀: 25800 mg/kg (rat);

Sodium chloride: Oral LD₅₀: 3000 mg/kg (rat);

Glycine: Oral LD₅₀: 4920 mg/kg (mouse);

Potassium phosphate monobasic: Oral LD_{Lo}: 4640 mg/kg (rat);

Citric acid: Oral LD₅₀: 3000 mg/kg (rat);

Potassium citrate: Oral LD₅₀: 5400 mg/kg (rat).

Inhalation: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be acutely toxic by the inhalation route.

Dermal: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be acutely toxic by the dermal route.

Skin Corrosion / Irritation: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be skin corrosive or irritant. Sodium chloride and citric acid are mild skin irritants.

Serious Eye Damage / Irritation: No data for the mixture is available. Based on available data for the ingredients, the mixture is considered to be an eye irritant. Citric acid is a severe eye irritant. Sodium chloride is a mild eye irritant.

Respiratory or Skin Sensitisation: No data for the mixture is available. Based on available data for the ingredients, the mixture is not classified as a skin sensitiser or a respiratory sensitiser.

Germ Cell Mutagenicity: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be mutagenic.

Carcinogenicity: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be carcinogenic.

Reproductive Toxicity: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be a reproductive toxicant.

STOT: Single exposure: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be a specific target organ toxicant after single exposure.

STOT: Repeat exposure: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be a specific target organ toxicant after repeat exposure.

Aspiration hazard: No data available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: No data for the mixture is available. Based on available data for the ingredients, the mixture is not considered to be toxic to the environment.

Fish

Glucose monohydrate: LC₅₀ (96h): 371.5 mg/L;
 Sodium chloride: LC₅₀ (96h): 620.2 mg/L, NOEC (6h): 0.001 mg/L;
 Glycine: LC₅₀ (96h): >1000 mg/L;
 Potassium phosphate monobasic: LC₅₀ (96h): >100 mg/L;
 Citric acid: LC₅₀ (96h): 9.2 mg/L;
 Potassium citrate: No data.

Crustacea

Glucose monohydrate: No data;
 Sodium chloride: EC₅₀ (48h): 402.6 mg/L, EC₅₀ (384h): 140.5 mg/L;
 Glycine: EC₅₀ (48h): > 220 mg/L, NOEC (48) >=220 mg/L;
 Potassium phosphate monobasic: EC₅₀ (48h): >100 mg/L;
 Citric acid: EC₅₀ (72h): <80 mg/L, EC₅₀ (48h): >50 mg/L NOEC (16h): 153 mg/L;
 Potassium citrate: No data.

Algae or other aquatic plants

Glucose monohydrate: EC₅₀ (96h): 22950 mg/L;
 Sodium chloride: EC₅₀ (96h): 2430 mg/L;
 Glycine: EC₅₀ (72h): >1000 mg/L, EC₅₀ (96h): 6418 mg/L;
 Potassium phosphate monobasic: EC₅₀ (48h): 300 mg/mL, EC₅₀ (72): >100 mg/L,
 NOEC (72): >100 mg/L;
 Citric acid: EC₅₀ (96h): 23.3 mg/L;
 Potassium citrate: NOEC (192h): 425 mg/L.

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation potential	Mobility
Glucose monohydrate	LOW	LOW	LOW (LogKOW = -3.24)	LOW (KOC = 10)
Sodium chloride	LOW	LOW	LOW (LogKOW = 0.5392)	LOW (KOC = 14.3)
Glycine	LOW	LOW	LOW (LogKOW = -3.21)	HIGH (KOC = 1)
Potassium phosphate monobasic	No data	No data	No data	No data
Citric acid monohydrate	LOW	LOW	LOW (LogKOW = -1.64)	LOW (KOC = 10)
Potassium citrate	No data	No data	No data	No data

Section 13: DISPOSAL INFORMATION

Product Disposal: Dispose of product only by using according to label or at an approved landfill.

Container Disposal: Dispose of container by wrapping with paper and putting in garbage.

Section 14: TRANSPORT INFORMATION

Dangerous Goods Classification: Not classed as a Dangerous Good for transport purposes by road, sea or air.

Section 15: REGULATORY INFORMATION

Poison Schedule (SUSMP): None.

APVMA Registration No: 35845.

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

Section 16: OTHER INFORMATION

This information is based on data believed by Jurox Pty Limited to be accurate at the time of writing but is subject to change without notice. It is given in good faith, but no warranty expressed or implied is made as to its accuracy, completeness otherwise and no assumption of liability from howsoever arising is made by Jurox Pty Limited by reason of the provision of this information. Every person dealing with the materials referred to herein does so at his/her own risk absolutely and must make independent determinations of suitability and completeness of information from all sources to ensure their proper use.

Legend:

AICS	Australian Inventory of Chemical Substances.
APVMA	Australian Pesticides and Veterinary Medicines Authority.
CAS No.	Chemical Abstracts Service Registry Number.
EC₅₀	The median effect concentration, being a statistically derived concentration of a substance that can be expected to cause an adverse reaction in 50% of organisms or a 50% reduction in growth or in the growth rate of organisms.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters.
LC₅₀	The median lethal concentration, being a statistically derived concentration of a substance that can be expected to cause death in 50% of animals.
LD₅₀	The median lethal dose, being a statistically derived single dose of a substance that can be expected to cause death in 50% of animals.
LD_{Lo}	Lowest published lethal dose.
NICNAS	National Industrial Chemicals Notification and Assessment Scheme.
NOEC	No-observable-effect-concentration.
NOEL	No-observable-effect-level.
PPE	Personal Protective Equipment.
PVC	Polyvinyl Chloride.
SDS	Safety Data Sheet.
STOT	Specific Target Organ Toxicity.
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons.
SWA	Safe Work Australia
TEELs	Temporary Emergency Exposure Limits. Guidelines designed to predict the response of members of the general public to different concentrations of a chemical during an emergency response incident.
TEEL-1	The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic, nonsensory effects. However, these effects are not disabling and are transient and reversible upon cessation of exposure.
TEEL-2	The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting, adverse health effects or an impaired ability to escape.
TEEL-3	The airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience life-threatening adverse health effects or death.

References:

ChemID Plus

EPA New Zealand Chemical Classification and Information Database (CCID)

HSDB (Hazardous Substances Data Bank)

This version issued: 28 January 2016 and is valid for 5 years from this date.

Supersedes: This SDS supersedes the version issued on 1 February 2011.

Revision History:

Date of Revision	Reason
28 January 2016	Reclassification of substance to GHS classification and update of SDS to comply with SWA Code of Practice.

END OF SDS