ISSUED: **15 October 2018**

SAFETY DATA SHEET

Section 1: IDENTIFICATION of CHEMICAL PRODUCT and COMPANY

Product Name: **Thiobarb Powder**

Product Identifier: A barbiturate anaesthetic made up of 1000 mg/g thiopentone sodium powder to be reconstituted with Water for Injection.

Product Code: 503690 (5g)

Recommended Use: For injectable general anaesthesia of horses, cattle, sheep, pigs, dogs and cats.

Restrictions on Use: For animal treatment only.

Company Identification: Jurox Pty Limited

Address: 85 Gardiner Street,
Rutherford, NSW 2320,
Australia

Email: customerservice@jurox.com.au

Customer Centre: 1800 023 312

National Poisons Information Centre: 13 1126 (24 hours)

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 follows:

GHS Category	Hazard code	Hazard Statement
Acute Toxicity (Oral) Category 3	H301	Toxic if swallowed
Specific target organ toxicity (RE) Category 2	H373	May cause damage to organs through prolonged or repeated exposure by the oral route.
Aquatic toxicity (chronic) Category 3	H412	Harmful to aquatic life with long lasting effects

Signal word: DANGER

GHS Pictograms:


Skull and crossbones


Health hazard

Precautionary statements:

Prevention

P260	Do not breathe dust or vapours.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.

Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE / doctor.
P330	Rinse mouth.
P314	Get medical advice/attention if you feel unwell.

Storage

P405	Store locked up.

Disposal

P501	Dispose of contents / container in accordance with label directions.

N.B.: The above statements are determined by Work Health and Safety regulations and may not reflect Signal Headings and First Aid and Safety statements on product labelling, which are determined by a competent authority during assessment for registration.

Other hazards: None known.

Section 3: COMPOSITION / INFORMATION on INGREDIENTS

INGREDIENT	CAS No.	CONTENT
Thiopentone sodium	71-73-8	100%

Section 4: FIRST AID MEASURES

General Information: 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: Overdosage of barbiturates produces CNS depression ranging from sleep to profound coma to death; respiratory depression which may progress to Cheyne-Stokes respiration, central hypoventilation, and cyanosis; cold, clammy skin and/or hypothermia or later fever, areflexia, tachycardia, hypotension, loss of peripheral vascular resistance, muscular hyperactivity (twitching to convulsive-like movements) seizures, allergic reactions, and decreased urine formation. Pupils usually are slightly constricted but may be dilated in severe poisoning. Patients with severe overdosage often experience typical shock syndrome; apnoea, circulatory collapse with loss of peripheral vascular tone, cardiac arrest, respiratory arrest, and death may occur. Complications such as pneumonia, pulmonary oedema, or renal failure may also prove fatal. Other complications which may occur are congestive heart failure, cardiac arrhythmias, and urinary tract infections.

Inhalation: If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually not necessary. If respiratory symptoms occur, remove patient to fresh air. Lay patient down and keep warm and rested. If breathing is shallow or has stopped, ensure airway is clear and apply resuscitation. If breathing is difficult, give oxygen and seek medical assistance immediately.

Ingestion: IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. A copy of the SDS should be provided or sent to the hospital with the patient if medical attention is not available on or near the worksite. **Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:** INDUCE vomiting with fingers down the back of the throat, ONLY IF

CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Wear a protective glove when inducing vomiting by mechanical means.

Skin: If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

Eye: If eye contact occurs: Immediately flush the eye continuously with running water. 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. Continue flushing for at least 15 minutes or until advised to stop by the Poisons Information Centre or doctor. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Injection: Treat as for needle stick injury. Wash area well and disinfect. If other symptoms become evident, seek medical advice.

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

Advice to Doctor: Treat as for acute intoxication by barbiturates.

Section 5: FIRE FIGHTING MEASURES

Flash Point: No data.

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: 2X

Section 6: ACCIDENTAL RELEASE MEASURES

Spills and Disposal: Wear gloves and appropriate protective clothing. Avoid breathing dust or vapours (when reconstituted) and contact with skin and eyes. For small spills, sweep up spilled product taking care not to generate dusts, then wipe area and put empty container in garbage. 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 accidental self-injection. Avoid contact with skin, eyes and inhalation of dusts or vapours (when reconstituted). Use personal protective equipment as required. Use in a well-ventilated area. Do not eat, drink or smoke while handling product. Wash hands after use.

Storage: Keep out of reach of children. Store below 25ºC (air conditioning).

Other Information: Avoid contact with incompatible substances as listed in Section 10. Always read the label before use.

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: No exposure limits have been assigned for this product. No exposure standards for thiopentone sodium are available.

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

Personal Protective Equipment (PPE):

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

Skin protection: When handling bulk product, 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:	Yellowish white powder
Odour:	Not available
Odour threshold:	Not available
pH:	Not applicable
Melting Point:	Not available
Boiling Point:	Not available
Flash Point:	Not applicable
Evaporation Rate:	Not available
Flammability:	Not applicable
Upper flammability limits:	Not available
Lower flammability limits:	Not available
Vapour Pressure:	Not available
Vapour density:	Not available
Relative density:	Not available
Specific Gravity:	Not available
Solubility in Water:	Miscible
Partition coefficient:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

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: Extreme temperatures.

Incompatible Materials: Oxidising agents.

Hazardous Decomposition Products: No data available.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:
Ingestion: Thiopentone sodium is toxic if swallowed. Animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.

Thiopentone sodium (Oral):	Rat LD_{50}: 117 mg/kg;
	Mouse LD_{50}: 208 mg/kg;
	Dog LD_{50}: 150 mg/kg.

Inhalation: No data available. Inhalation of dusts, generated by the material during the course of normal handling may be damaging to the health of the individual.

Dermal: No data available. This material can cause inflammation of the skin on contact in some persons.

Injection: Thiopentone sodium is a barbiturate and if injected perivascularly can cause tissue death due to the alkaline nature of barbiturates.

Thiopentone sodium:	Subcutaneous (mouse) LD_{50}: 225 mg/kg;
	Intraperitoneal (rat) LD_{50}: 28.4 mg/kg;
	Intravenous (rabbit) LD_{50}: 31 mg/kg.

Skin Corrosion / Irritation: When reconstituted with water the alkaline nature of the solution can cause skin irritation / corrosion.

Serious Eye Damage / Irritation: Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.

Respiratory or Skin Sensitisation: No data available. Thiopentone sodium is not thought to cause respiratory or skin sensitisation.

Germ Cell Mutagenicity: No data available. Thiopentone sodium is not thought to cause germ cell mutagenicity.

Carcinogenicity: No data is available. Thiopentone sodium is not considered to be carcinogenic.

Reproductive Toxicity: No data available. Neonates born to women who receive barbiturates throughout the last trimester of pregnancy may show withdrawal symptoms from 1-14 days after birth. Withdrawal symptoms, which resemble congenital opiate withdrawal symptoms, include hyperactivity, restlessness, disturbed sleep, tremor, and hyperreflexia.

STOT: Single exposure: No data available. Thiopentone sodium is not considered to be a specific target organ toxicant after single exposure.

STOT: Repeat exposure: Due to the presence of thiopentone sodium, prolonged or repeated exposure may lead to disorientation, mental confusion, dizziness, depression and skin rash. Overdosage can lead to acute poisoning and death from respiratory and circulatory failure.

Aspiration Hazard: No data available.

Respiratory Irritation: No data available.

Narcotic Effects: Side effects of barbiturates include slow, shallow breathing, pin-point pupils, weak pulse, low blood pressure and sometimes a skin reaction. Barbiturates can cause an alcoholism-like syndrome when used long term.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Thiopentone sodium is harmful in the aquatic environment.

Fish
Thiopentone sodium: LC_{50} (96h): 26.2 mg/L.

Crustacea
No data.

Algae and other aquatic plants
No data.

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Thiopentone sodium	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 placing in garbage.

Section 14: TRANSPORT INFORMATION

Dangerous Goods Classification: Classified as a Dangerous Good according to the criteria of the Australian Dangerous Goods (ADG) Code (land), the IATA Dangerous Goods Regulations (air) and the IMDG Code (sea).

Proper Shipping Name: MEDICINE, SOLID, TOXIC, N.O.S. (contains thiopentone sodium).

UN Number: 3249

Transport Hazard Class: 6.1

Packing Group: III

HAZCHEM Code: 2X

Section 15: REGULATORY INFORMATION

Poison Schedule (SUSMP): S4

APVMA No.: 51520

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:

ADG Code	Australian Dangerous Goods Code.
AICS	Australian Inventory of Chemical Substances.
CAS No.	Chemical Abstracts Service Registry Number.
EC_{50}	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.
IATA	International Air Transport Association.
IMDG Code	International Maritime Dangerous Goods Code.
KOC	Soil-Water Partition Coefficient. The ratio of a chemical's concentration that is adsorbed in the soil to the concentration of chemical in solution.
KOW	Octanol Water Partition Coefficient. The ratio of a compound's concentration in a known volume of n-octanol to its concentration in a known volume of water after the octanol and water have reached equilibrium.
LC_{50}	The median lethal concentration, being a statistically derived concentration of a substance that can be expected to cause death in 50% of animals.
LD_{50}	The median lethal dose, being a statistically derived single dose of a substance that can be expected to cause death in 50% of animals.
NICNAS	National Industrial Chemicals Notification and Assessment Scheme.
NOEC	No-observable-effect-concentration.
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.

References:

ChemID Plus

EPA New Zealand Chemical Classification and Information Database (CCID)

HSDB (Hazardous Substances Data Bank)

This version issued: 15 October 2018 and is valid for 5 years from this date.

Supercedes: This SDS supercedes the version issued on 22 March 2016.

Revision History:

Date of Revision	Reason
22 March 2016	GHS classification and update of SDS to comply with SWA Code of Practice.
15 October 2018	Updated section 1 (added product identifier and updated email address). Updated section 2 to add specific target organ toxicity (RE) Category 2 and aquatic toxicity (chronic) category 3. Updated ingestion and eye headings in section 4. Updated Hazchem code in section5. Updated handling in section 7. Updates to section 9 to match Chemwatch. Updated section 11 with further information.

END OF SDS