**Product Name: KTS Potassium Thiosulphate Solution** 

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## Section 1 - Identification of the Material and Supplier

Landmark Operations Ltd Phone: (03) 9209 2150 (office hours)
Level 18, 380 La Trobe St Fax: (03) 9670 0731

Level 18, 380 La Trobe St Melbourne, Vic 3000

**Chemical nature:** Potassium thiosulphate solution

Trade Name: KTS Potassium Thiosulphate Solution

Product Use: Fertiliser

Creation Date: January, 2017

This version issued: January, 2017 and is valid for 5 years from this date. Poisons Information Centre: Phone 13 1126 from anywhere in Australia

#### Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as: Not classified as hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

SUSMP Classification: None allocated.

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG)

Code, IATA or IMDG/IMSBC criteria. **UN Number:** None allocated

# GHS Signal word: NONE. Not hazardous.

#### **PREVENTION**

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

#### **RESPONSE**

P362: Take off contaminated clothing and wash before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

### **STORAGE**

P404: Store in a closed container.

#### **DISPOSAL**

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

### **Emergency Overview**

Physical Description & Colour: Colourless to light yellow liquid

Odour: Mild and/or unpleasant odour

Major Health Hazards: no significant risk factors have been found for this product.

### Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m³)
Potassium thiosulphate	10294-66-3	50	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

# **Section 4 - First Aid Measures**

### **General Information:**

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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 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

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

**Skin Contact:** Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If nausea or gastric upset develops, remove individual to rest area and monitor. If symptoms get worse or if individual becomes distressed, do NOT induce vomiting; contact the Poisons Information Centre or a doctor.

# **Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards**: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Not combustible. Use extinguishing media suited to burning materials. **Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash point:** Will not burn until water component is driven off.

Upper Flammability Limit:Does not burn.Lower Flammability Limit:Does not burn.Autoignition temperature:Does not burn.Flammability Class:Does not burn.

#### **Section 6 - Accidental Release Measures**

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include neoprene. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute oxidising agent. Dilute hydrogen peroxide may be suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## **Section 7 - Handling and Storage**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Make sure that containers of this product are kept tightly closed. Keep away from sources of ignition such as sparks and open flames. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

## **Section 8 - Exposure Controls and Personal Protection**

The following Australian Standards will provide general advice regarding safety clothing and equipment:

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Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**. Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems. **Ventilation:** This product should only be used where there is ventilation that is adequate to keep exposure below

the TWA levels. If necessary, use a fan.

**Eye Protection:** Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: neoprene. **Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

# **Section 9 - Physical and Chemical Properties:**

**Physical Description & colour**: Colourless to light yellow liquid **Odour:** Mild and/or unpleasant odour

**Boiling Point:** 106°C at 100kPa **Freezing/Melting Point:** Approximately 0°C. **Volatiles:** Water component.

**Vapour Pressure:** 2.37 kPa at 20°C (water vapour pressure).

Vapour Density: As for water.
Specific Gravity: Approx 1.5

Water Solubility: Completely soluble in water.

pH: 7.0-8.2

Volatility: No data.

Odour Threshold: No data.

Evaporation Rate: As for water.

Coeff Oil/water Distribution: No data

Autoignition temp: Does not burn.

## Section 10 - Stability and Reactivity

**Reactivity:** Reaction with some acids or when exposed to heat may release sulphur oxides, which are toxic and corrosive gases.

Conditions to Avoid: Keep containers tightly closed. Keep away from sources of sparks or ignition.

Incompatibilities: strong acids, oxidising agents, lead.

**Fire Decomposition:** This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Potassium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** Polymerisation reactions are unlikely; they are not expected to occur.

## **Section 11 - Toxicological Information**

**Local Effects:** 

**Target Organs:** There is no data to hand indicating any particular target organs.

## **Classification of Hazardous Ingredients**

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

#### **Potential Health Effects**

### Inhalation:

**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

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**Long Term Exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:** 

**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

Long Term Exposure: No data for health effects associated with long term skin exposure.

**Eye Contact:** 

**Short Term Exposure:** This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. However, this product may be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: No data for health effects associated with long term ingestion.

**Carcinogen Status:** 

**SWA:** No significant ingredient is classified as carcinogenic by SWA. **NTP:** No significant ingredient is classified as carcinogenic by NTP. **IARC:** No significant ingredient is classified as carcinogenic by IARC.

## **Section 12 - Ecological Information**

Insufficient data to be sure of status.

## **Section 13 - Disposal Considerations**

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable in-house, consider controlled incineration, or contact a specialist waste disposal company.

### **Section 14 - Transport Information**

**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

#### **Section 15 - Regulatory Information**

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

#### **Section 16 - Other Information**

This SDS contains only safety-related information. For other data see product literature.

**Acronyms:** 

**ADG Code** Australian Code for the Transport of Dangerous Goods by Road and Rail (7<sup>th</sup> edition)

AICS

Australian Inventory of Chemical Substances

SWA

Safe Work Australia, formerly ASCC and NOHSC

CAS number

Chemical Abstracts Service Registry Number

Hazchem Code Emergency action code of numbers and letters that provide information to emergency

services especially firefighters

IARC International Agency for Research on Cancer

NOS Not otherwise specified

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

**SUSMP** Standard for the Uniform Scheduling of Medicines & Poisons

**UN Number** United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

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IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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