



SAFETY DATA SHEET
SODIUM HEXAMETAPHOSPHATE SOLUTION
REVISION 4, DATE 01 FEB 2023

1. IDENTIFICATION

| | |
|----------------------------|---|
| Product Name | Sodium Hexametaphosphate Solution |
| Other Names | Glassy Solution; SHMP 20%; Sodium polyphosphate [CAS#68915-31-1]; Sodium Polyphosphate Solution |
| Uses | Sequestrant and preservative adjunct for use in food/dairy; Water treatment; Sequestrant for alkali metals; Corrosion control; Scale control; Softening; Red and black water control. |
| Chemical Family | No Data Available |
| Chemical Formula | Unspecified |
| Chemical Name | Sodium Hexametaphosphate Solution 20% (w/v) |
| Product Description | No Data Available |

Contact Details of the Supplier of this Safety Data Sheet

| Organisation | Location | Telephone |
|-------------------------|--|------------------|
| Redox Ltd | 2 Swettenham Road Minto NSW 2566 Australia | +61-2-97333000 |
| Redox Ltd | 11 Mayo Road Wiri Auckland 2104 New Zealand | +64-9-2506222 |
| Redox Inc. | 3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA | +1-424-675-3200 |
| Redox Chemicals Sdn Bhd | Suite 13A.03, Menara Summit Persiaran Kewajipan USJ1 47600 UEP Subang Jaya Selangor, Malaysia | +60-3-5614-2111 |

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

| Organisation | Location | Telephone |
|----------------------------|--------------------------|--|
| Poisons Information Centre | Australia – Westmead NSW | 1800-251525 131126 |
| Chemcall | Australia | 1800-127406 +64-4-9179888 |
| Chemcall | Malaysia | +64-4-9179888 |
| National Poison Centre | Malaysia | +60-4-6536-999 |
| Chemcall | New Zealand | 0800-243622 +64-4-9179888 |
| National Poisons Centre | New Zealand | 0800-764766 |
| CHEMTREC | USA & Canada | 1-800-424-9300 CN723420 +1-703-527-3887 |

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

| | |
|------------------------------|--|
| Hazard Classification | NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) |
| Signal Word | None |

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

| | |
|---------------------------------------|---|
| Dangerous Goods Classification | NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|---------------------------------------|---|

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

| Chemical Entity | Formula | CAS Number | Proportion |
|--------------------------|-------------------|------------|------------|
| Sodium hexametaphosphate | No Data Available | 10124-56-8 | 18 - 22 % |
| Water | H2O | 7732-18-5 | Balance % |

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

| | |
|--|---|
| Swallowed | IF SWALLOWED: Rinse mouth, then drink 2 - 3 glasses of water. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if you feel unwell. If vomiting occurs spontaneously, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Never give anything by mouth to an unconscious person. |
| Eye | IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention. |
| Skin | IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention. |
| Inhaled | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. |
| Advice to Doctor | All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves. |
| Medical Conditions Aggravated by Exposure | Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease. |

5. FIRE FIGHTING MEASURES

| | |
|-------------------------|--|
| General Measures | If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. |
|-------------------------|--|

| | |
|---|---|
| | Dike fire control water for later disposal. |
| Flammability Conditions | Non-combustible. |
| Extinguishing Media | If material is involved in a fire, use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction - Do not scatter spilled material with high pressure water streams. Use extinguishing media suitable for surrounding fire. |
| Fire and Explosion Hazard | Containers may explode when heated. |
| Hazardous Products of Combustion | Decomposition may produce irritating and or toxic gases, including oxides of Phosphorus, oxides of Sodium. |
| Special Fire Fighting Instructions | Contain runoff from fire control or dilution water - Runoff may cause pollution. |
| Personal Protective Equipment | Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. |
| Flash Point | No Data Available |
| Lower Explosion Limit | No Data Available |
| Upper Explosion Limit | No Data Available |
| Auto Ignition Temperature | No Data Available |
| Hazchem Code | No Data Available |

6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| General Response Procedure | Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid breathing vapours and contact with eyes, skin and clothing. |
| Clean Up Procedures | Pick up with sand or other non-combustible absorbent material and place into containers for later disposal (see SECTION 13). |
| Containment | Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Dike far ahead of large spill for later disposal. |
| Decontamination | Flush residual spill area with large amounts of water. |
| Environmental Precautionary Measures | Prevent entry into drains and waterways. |
| Evacuation Criteria | Spill or leak area should be isolated immediately. Keep unauthorised personnel away. |
| Personal Precautionary Measures | Use personal protective equipment as required (see SECTION 8). |

7. HANDLING AND STORAGE

| | |
|------------------|---|
| Handling | Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). |
| Storage | Store in a cool, dry and well-ventilated place, out of direct sunlight. Protect from freezing. Keep container tightly closed when not in use. Keep away from incompatible materials (see SECTION 10). |
| Container | Keep in the original container. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|--------------------------|--|
| General | The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. |
| Exposure Limits | No Data Available |
| Biological Limits | No information available. |

| | |
|--------------------------------------|---|
| Engineering Measures | A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. |
| Personal Protection Equipment | <ul style="list-style-type: none"> - Respiratory protection: In case of inadequate ventilation, wear respiratory protection (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Wear safety glasses with side-shields; Goggles recommended during refilling. - Hand protection: Handle with gloves. The glove material has to be impermeable and resistant to the product/substance/preparation. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Wear long-sleeved clothing and/or protective coveralls. |
| Special Hazards Precautions | No information available. |
| Work Hygienic Practices | Do not eat, drink or smoke when using this product. Wash hands and exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------------|---------------------------------|
| Physical State | Liquid |
| Appearance | Clear liquid |
| Odour | Odourless |
| Colour | Colourless |
| pH | 4.8 - 5.2 (neat) |
| Vapour Pressure | No Data Available |
| Relative Vapour Density | No Data Available |
| Boiling Point | No Data Available |
| Melting Point | No Data Available |
| Freezing Point | No Data Available |
| Solubility | No Data Available |
| Specific Gravity | 1.130 - 1.150 |
| Flash Point | No Data Available |
| Auto Ignition Temp | No Data Available |
| Evaporation Rate | No Data Available |
| Bulk Density | No Data Available |
| Corrosion Rate | No Data Available |
| Decomposition Temperature | No Data Available |
| Density | 1.130 - 1.150 g/ml |
| Specific Heat | No Data Available |
| Molecular Weight | No Data Available |
| Net Propellant Weight | No Data Available |
| Octanol Water Coefficient | No Data Available |
| Particle Size | No Data Available |
| Partition Coefficient | No Data Available |
| Saturated Vapour Concentration | No Data Available |
| Vapour Temperature | No Data Available |
| Viscosity | No Data Available |
| Volatile Percent | No Data Available |
| VOC Volume | No Data Available |
| Additional Characteristics | Solid content: 18 - 22 % (w/v). |
| Potential for Dust Explosion | Not applicable. |

| | |
|---|--|
| Fast or Intensely Burning Characteristics | No information available. |
| Flame Propagation or Burning Rate of Solid Materials | No information available. |
| Non-Flammables That Could Contribute Unusual Hazards to a Fire | No information available. |
| Properties That May Initiate or Contribute to Fire Intensity | Non-combustible. |
| Reactions That Release Gases or Vapours | Decomposition may produce irritating and or toxic gases, including oxides of Phosphorus, oxides of Sodium. |
| Release of Invisible Flammable Vapours and Gases | No information available. |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| General Information | No dangerous reaction known under conditions of normal use. |
| Chemical Stability | This material is stable under normal handling and storage conditions. |
| Conditions to Avoid | Protect from freezing. |
| Materials to Avoid | No information available. |
| Hazardous Decomposition Products | Decomposition may produce irritating and or toxic gases, including oxides of Phosphorus, oxides of Sodium. |
| Hazardous Polymerisation | Hazardous polymerisation will not occur. |

11. TOXICOLOGICAL INFORMATION

| | |
|----------------------------|--|
| General Information | <p>Information on possible routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: Ingestion of large quantities may cause nausea, vomiting, diarrhoea, abdominal cramps, headache, decreased blood pressure, decreased heart rate, coma. - Eye contact: May cause mild irritation. - Skin contact: May cause slight transient irritation on prolonged contact. - Inhalation: Low acute inhalation toxicity. <p>Chronic effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.</p> |
| Acute | |
| Ingestion | <p>Acute toxicity (Oral):</p> <ul style="list-style-type: none"> - LD50, Rat: 3,053 mg/kg (Sodium polyphosphates). |
| Carcinogen Category | None |

12. ECOLOGICAL INFORMATION

| | |
|----------------------------------|--|
| Ecotoxicity | No information available. |
| Persistence/Degradability | No information available. |
| Mobility | No information available. |
| Environmental Fate | Prevent entry into drains and waterways. |
| Bioaccumulation Potential | No information available. |
| Environmental Impact | No Data Available |

13. DISPOSAL CONSIDERATIONS

| | |
|--|---|
| General Information | Dispose of contents/container in accordance with local/regional/national regulations. |
| Special Precautions for Land Fill | Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from Federal disposal regulations. |

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code

| | |
|-----------------------------|--|
| Proper Shipping Name | Sodium Hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Land Transport (Malaysia)

ADR Code

| | |
|-----------------------------|--|
| Proper Shipping Name | Sodium Hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Land Transport (New Zealand)

NZS5433

| | |
|-----------------------------|-----------------------------------|
| Proper Shipping Name | Sodium Hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |

SAFETY DATA SHEET SODIUM HEXAMETAPHOSPHATE SOLUTION REVISION 4, DATE 01 FEB 2023

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

| | |
|----------------------|--|
| Proper Shipping Name | Sodium hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for LAND transport. |

Sea Transport

IMDG Code

| | |
|----------------------|---|
| Proper Shipping Name | Sodium Hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| EMS | No Data Available |
| Marine Pollutant | No |
| Comments | NON-DANGEROUS GOODS: Not regulated for SEA transport. |

Air Transport

IATA DGR

| | |
|----------------------|---|
| Proper Shipping Name | Sodium Hexametaphosphate Solution |
| Class | No Data Available |
| Subsidiary Risk(s) | No Data Available |
| UN Number | No Data Available |
| Hazchem | No Data Available |
| Pack Group | No Data Available |
| Special Provision | No Data Available |
| Comments | NON-DANGEROUS GOODS: Not regulated for AIR transport. |

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

| | |
|--------------------------------|---|
| Dangerous Goods Classification | NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) |
|--------------------------------|---|

15. REGULATORY INFORMATION

SAFETY DATA SHEET SODIUM HEXAMETAPHOSPHATE SOLUTION REVISION 4, DATE 01 FEB 2023

| | |
|-------------------------|-------------------|
| General Information | No Data Available |
| Poisons Schedule (Aust) | Not Scheduled |

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

| | |
|---------------|--------------|
| Approval Code | Not Assessed |
|---------------|--------------|

National/Regional Inventories

| | |
|--|----------------|
| Australia (AIIIC) | Listed |
| Canada (DSL) | Not Determined |
| Canada (NDSL) | Not Determined |
| China (IECSC) | Not Determined |
| Europe (EINECS) | Not Determined |
| Europe (REACH) | Not Determined |
| Japan (ENCS/METI) | Not Determined |
| Korea (KECI) | Not Determined |
| Malaysia (List of Classified Substances) | Not Determined |
| New Zealand (NZIoC) | Listed |
| Philippines (PICCS) | Not Determined |
| Taiwan (TCSI) | Not Determined |
| USA (TSCA) | Not Determined |
| Mexico (INSQ) | Not Determined |

16. OTHER INFORMATION

| | |
|-----------------------|--|
| Related Product Codes | SOHEXA2020, SOHEXF3160, SOHEXF3165 |
| Revision | 4 |
| Revision Date | 01 Feb 2023 |
| Key/Legend | <p>< Less Than</p> <p>> Greater Than</p> <p>AICS Australian Inventory of Chemical Substances</p> <p>atm Atmosphere</p> <p>CAS Chemical Abstracts Service (Registry Number)</p> <p>cm² Square Centimetres</p> <p>CO₂ Carbon Dioxide</p> <p>COD Chemical Oxygen Demand</p> <p>deg C (°C) Degrees Celcius</p> <p>EPA (New Zealand) Environmental Protection Authority of New Zealand</p> <p>deg F (°F) Degrees Farenheit</p> <p>g Grams</p> <p>g/cm³ Grams per Cubic Centimetre</p> |

g/l Grams per Litre

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluble in each other.

inHg Inch of Mercury

inH₂O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

lb Pound

LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

ltr or **L** Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight