# SAFETY DATA SHEET
# SORBITAN MONOOLEATE
# REVISION 3, DATE 14 FEB 19

## 1. IDENTIFICATION

| | |
|---|---|
| **Product Name** | **Sorbitan monooleate** |
| **Other Names** | N-7; Sorbitan Oleate; SPAN 80 HP-LQ-(MH) |
| **Uses** | Surfactants; Food additives; Emulsifier; Stabiliser; Detergents & water care. |
| **Chemical Family** | No Data Available |
| **Chemical Formula** | C24H44O6 |
| **Chemical Name** | Sorbitan, mono-9-octadecenoate, (Z)- |
| **Product Description** | No Data Available |

### Contact Details of the Supplier of this Safety Data Sheet

| Organisation | Location | Telephone |
|---|---|---|
| Redox Ltd | 2 Swettenham Road<br>Minto NSW 2566<br>Australia | +61-2-97333000 |
| Redox Ltd | 11 Mayo Road<br>Wiri Auckland 2104<br>New Zealand | +64-9-2506222 |
| Redox Inc. | 3960 Paramount Boulevard<br>Suite 107<br>Lakewood CA 90712<br>USA | +1-424-675-3200 |
| Redox Chemicals Sdn Bhd | Level 2, No. 8, Jalan Sapir 33/7<br>Seksyen 33, Shah Alam Premier Industrial Park<br>40400 Shah Alam<br>Sengalor, 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 | Westmead NSW | 1800-251525<br>131126 |
| Chemcall | Australia | 1800-127406<br>+64-4-9179888 |
| Chemcall | Malaysia | +64-4-9179888 |
| Chemcall | New Zealand | 0800-243622<br>+64-4-9179888 |
| National Poisons Centre | New Zealand | 0800-764766 |
| CHEMTREC | USA & Canada | 1-800-424-9300 CN723420<br>+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)

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|---|---|
| **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 |
|---|---|---|---|
| Sorbitan monooleate | C24H44O6 | 1338-43-8 | <=100 % |

## 4. FIRST AID MEASURES

***Description of necessary measures according to routes of exposure***

| | |
|---|---|
| **Swallowed** | IF SWALLOWED: Rinse mouth. Get medical advice/attention if you feel unwell. Do not induce vomiting unless directed to do so by medical personnel. 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 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. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult. |
| **Advice to Doctor** | Treat symptomatically. |
| **Medical Conditions Aggravated by Exposure** | No information available. |

## 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. |
| **Flammability Conditions** | May burn but does not ignite readily. |
| **Extinguishing Media** | Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. |
| **Fire and Explosion Hazard** | Containers may explode when heated. |
| **Hazardous Products of Combustion** | Fire may produce irritating, toxic and/or corrosive fumes, including Carbon oxides. |
| | Contain runoff from fire control or dilution water - Runoff may pollute waterways. |

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|---|---|
| **Special Fire Fighting Instructions** | |
| **Personal Protective Equipment** | Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection. |
| **Flash Point** | >113 °C [Closed cup] |
| **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. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid breathing vapours and contact with eyes, skin and clothing. |
| **Clean Up Procedures** | Absorb with earth, sand or other non-combustible material and transfer to a suitable container for disposal (see SECTION 13). |
| **Containment** | Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. |
| **Decontamination** | No information available. |
| **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

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|---|---|
| **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 and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. |
| **Storage** | Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (See SECTION 10). |
| **Container** | Keep in the original container. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---|---|
| **General** | No specific exposure standards are available for this product. |
| **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** | - Respiratory protection: Respiratory protection is not necessary for normal handling. Wear respiratory protection under conditions where exposure to the substance is apparent. Recommended: Organic vapour respirator (refer to AS/NZS 1715 & 1716).<br>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side-shields or goggles.<br>- Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves.<br>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Chemical- |

| | |
|---|---|
| | resistant apron; Long-sleeved clothing. |
| **Special Hazards Precaustions** | No information available. |
| **Work Hygienic Practices** | Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Physical State** | Liquid |
| **Appearance** | Clear liquid |
| **Odour** | No information available. |
| **Colour** | Yellow/amber/brown |
| **pH** | 5 - 7 (1% in 50% IPA) |
| **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** | Insoluble in water |
| **Specific Gravity** | 0.975 - 0.995 |
| **Flash Point** | >113 °C [Closed cup] |
| **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** | No Data Available |
| **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** | No information available. |
| **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** | May burn but does not ignite readily. |
| **Reactions That Release Gases or Vapours** | Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides. |
| **Release of Invisible Flammable Vapours and Gases** | No information available. |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **General Information** | No information available. |
| **Chemical Stability** | Stable under recommended storage conditions. |
| **Conditions to Avoid** | Keep away from heat and sources of ignition. |
| **Materials to Avoid** | Incompatible/reactive with oxidising agents. |
| **Hazardous Decomposition Products** | Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including Carbon oxides. |
| **Hazardous Polymerisation** | Hazardous polymerization does not occur. |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **General Information** | Information on possible routes of exposure:<br>- Ingestion: May cause gastrointestinal tract irritation.<br>- Eye contact: May cause eye irritation.<br>- Skin contact: May cause skin irritation.<br>- Inhalation: May cause respiratory tract irritation.<br>Chronic effects: Not considered carcinogenic. |
| ***Acute*** | |
| **Ingestion** | Acute toxicity (Oral):<br>- LD50, Rat: >39,800 mg/kg |
| **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** | Empty containers should be taken for local recycling, recovery or waste disposal. |

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)
ADG Code

| | |
|---|---|
| **Proper Shipping Name** | Sorbitan monooleate |
| **Class** | C2 Combustible Liquids - Flash Point >93°C, Closed Cup, Not Excluded Flammable |
| **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** | Sorbitan monooleate |
| **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** | Sorbitan monooleate |
| **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 (United States of America)
US DOT

| | |
|---|---|
| **Proper Shipping Name** | Sorbitan monooleate |
| **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** | Sorbitan monooleate |
| **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** | Sorbitan monooleate |
| **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

| | |
|---|---|
| **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 Hazardous |

### National/Regional Inventories

| | |
|---|---|
| **Australia (AIIC)** | Listed |
| **Canada (DSL)** | Not Determined |
| **Canada (NDSL)** | Not Determined |
| **China (IECSC)** | Not Determined |
| **Europe (EINECS)** | 215-665-4 |
| **Europe (REACh)** | Not Determined |
| **Japan (ENCS/METI)** | Not Determined |
| **Korea (KECI)** | Not Determined |
| **Malaysia (EHS Register)** | Not Determined |
| **New Zealand (NZIoC)** | Listed |
| **Philippines (PICCS)** | Not Determined |
| **Switzerland (Giftliste 1)** | Not Determined |
| **Switzerland (Inventory of Notified Substances)** | Not Determined |
| **Taiwan (NCSR)** | Not Determined |
| **USA (TSCA)** | Not Determined |

## 16. OTHER INFORMATION

| | |
|---|---|
| **Related Product Codes** | SOROLE1000, SOROLE1001, SOROLE1002, SOROLE1003, SOROLE1005, SOROLE1010, SOROLE1050, SOROLE1055, SOROLE1200, SOROLE1300, SOROLE2000, SOROLE2010, SOROLE2100, SOROLE2300, SOROLE2700, SOROLE3000, SOROLE4000, SOROLE4001, SOROLE4007, SOROLE4050, SOROLE4092, SOROLE5000, SOROLE7000 |
| **Revision** | 3 |
| **Revision Date** | 14 Feb 2019 |
| **Key/Legend** | < Less Than<br>> Greater Than<br>**AICS** Australian Inventory of Chemical Substances<br>**atm** Atmosphere<br>**CAS** Chemical Abstracts Service (Registry Number)<br>**$cm^2$** Square Centimetres<br>**CO2** Carbon Dioxide<br>**COD** Chemical Oxygen Demand<br>**deg C (°C)** Degrees Celcius<br>**EPA (New Zealand)** Environmental Protection Authority of New Zealand<br>**deg F (°F)** Degrees Farenheit<br>**g** Grams<br>**$g/cm^3$** Grams per Cubic Centimetre<br>**g/l** Grams per Litre<br>**HSNO** Hazardous Substance and New Organism<br>**IDLH** Immediately Dangerous to Life and Health<br>**immiscible** Liquids are insoluable in each other.<br>**inHg** Inch of Mercury<br>**inH2O** Inch of Water |

**K** Kelvin
**kg** Kilogram
**kg/m$^3$** 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
**m$^3$** Cubic Metre
**mbar** Millibar
**mg** Milligram
**mg/24H** Milligrams per 24 Hours
**mg/kg** Milligrams per Kilogram
**mg/m$^3$** 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 Heath 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