



## Material Safety Data Sheet (MSDS) – SLES

### Sodium Lauryl Ether Sulfate (SLES)

#### Section 1: Chemical Product and Company Identification

**Product Name:** Sodium Laureth Sulfate      **Contact Information:** Petro ARSES Chemical Co.

**Chemical Name:** Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega  
 .-hydroxy-,C12-14-alkyl ethers, sodium salts      **Web:** [www.petroarses.com](http://www.petroarses.com)

**Trade Name:** SLES      **E-mail:** [info@petroarses.com](mailto:info@petroarses.com)

**Synonyms:** (Alcohols, C12-14, ethoxylated, sulfates,      **Mobile**      +98 912 650 8553  
 sodium salts;) (Linear C12-14-alkanol, ethoxylated, sulfated,  
 sodium salt;) SLES 70%; SLES 70% 2EO; SLES 70% 3EO;  
 Sodium Laureth Sulfate

**General Chemical formula:**  $\text{CH}_3(\text{CH}_2)_{10}\text{CH}_2(\text{OCH}_2\text{CH}_2)_n\text{OSO}_3\text{Na}$

**Recommended Use:** Surfactant for various applications, Ingredient in personal and home care products.

#### Section 2 : Composition and Information on Ingredients

**Chemical Nature:** Surfactant

Chemical Identity	CAS #	Weight Range	
		Mole 1 & 2	Mole 3
Sodium Lauryl Ether Sulphate	3088-31-1	68 – 72 %	27 – 29 %
Water	7732-18-5	24 – 28 %	69 – 71 %
Sodium Sulphate	7757-82-6	≤ 1.0 %	≤ 1.0 %
1,4 Dioxan	123-91-1	≤ 50 ppm	≤ 50 ppm

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### Section 3: Hazards Identification

**Hazard Classification:** Hazardous according to the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

- Hazard Categories:**
- Skin Corrosion/Irritation - Category 2
  - Serious Eye Damage/Irritation - Category 1
  - Acute Hazard To The Aquatic Environment - Category 2
  - Long-term Hazard To The Aquatic Environment - Category 3

**Pictograms**



**Signal Word:** Danger

- Hazard Statements:**
- |      |  |
|------|--|
| H315 | Causes skin irritation.                            |
| H318 | Causes serious eye damage.                         |
| H401 | Toxic to aquatic life.                             |
| H412 | Harmful to aquatic life with long lasting effects. |

- Precautionary Statements:**
- |            |   |
|------------|---|
| Prevention | P280 Wear protective gloves/eye protection/face protection.   |
|            | P273 Avoid release to the environment.  |
| Response   | P305 + P351 + P338 + P310   |
|            | If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. |
|            | P302 + P352 If ON SKIN: Wash with plenty of soap and water.   |
|            | P332 + P313 If skin irritation occurs: Get medical advice/attention.  |
| Disposal   | P362 Take off contaminated clothing and wash before reuse.  |
|            | P501 Dispose of contents/container in accordance with local / regional / national /international regulations  |

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria.

**Hazardous Substances and New Organisms Amendment**

- HSNO Classifications:**
- |         |      |   |
|---------|------|---|
| Health  | 6.3A | Substances that are irritating to the skin.     |
| Hazards | 8.3A | Substances that are corrosive to ocular tissue. |



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### Section 4 : First Aid Measures

Description of necessary measures according to routes of exposure

- Swallowed:** If swallowed rinse mouth, then drink 1 - 2 glasses of water. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice. 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. Immediately call a Poison Centre or doctor/physician for advice. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Chemical burns must be treated promptly by a physician.
- Skin:** If on skin remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes, or wear gloves. If skin irritation occurs, get medical advice/attention. Chemical burns must be treated promptly by a physician. Wash contaminated clothing and shoes before reuse.
- Inhaled:** If inhaled remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing; Administer oxygen if breathing is difficult. Keep victim calm and warm - Obtain immediate medical care.

**Advice to Doctor:**

Immediately call a Poison Centre or doctor/physician for advice if large quantities have been ingested or inhaled.

Treat symptomatically. 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:**

No information available

### Section 5: Fire and Explosion Data

**General Measures:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

**Flammability Conditions:** Combustible material; May burn but does not ignite readily. Page 3 of 11

**Extinguishing Media:** Use dry chemical, Carbon dioxide (CO<sub>2</sub>), foam or water spray for extinction - Do not use water jet.

**Fire and Explosion Hazard:** Containers may explode when heated.



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### Hazardous Products of Combustion:

Fire may produce irritating, toxic and/or corrosive fumes, including oxides of Sulfur

### Special Fire Fighting Instructions:

Contain runoff from fire control or dilution water - Runoff may pollute waterways.

### 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:** >93 °C

**Lower Explosion Limit:** No Data Available

**Upper Explosion Limit:** No Data Available

**Auto Ignition Temperature:** No Data Available

**Hazchem Code:** No Data Available

### Section 6: Accidental Release Measures

**General Response Procedure:** No action shall be taken involving any personal risk or without suitable training. Ensure adequate ventilation. Eliminate all ignition sources. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust/vapours and contact with eyes, skin and clothing.

**Clean Up Procedures:** Move containers from spill area. Collect material (using a vacuum with HEPA filter) and place into a suitable, labelled container for disposal (see SECTION 13). Do not dry sweep. Avoid dispersal of dust in the air (i.e. clearing dusty surfaces with compressed air). Non-sparking tools should be used.

**Containment:** Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.

**Decontamination:** No information available.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant Environmental  
Precautionary Measures Authorities if the product has caused  
environmental pollution.

**Evacuation Criteria:** Spill or leak area should be isolated immediately. Keep unauthorized personnel away



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### Personal Precautionary Measures:

Use personal protective equipment as required. Wear appropriate respirator when ventilation is inadequate

### Section 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 dust/mist/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Combustible material: Keep away from heat and sources of ignition - No smoking. Take precautionary measures against static discharge. Avoid release to the environment.

**Storage:** Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and sources of ignition - No smoking. Keep away from food/drink and incompatible materials (see SECTION 10). Use appropriate containment to avoid environmental contamination.

**Container:** Keep in the original container or an approved alternative made from a compatible material. Do not store in unlabeled containers. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Section 8: Exposure Controls/Personal Protection

**General:** No specific exposure standards are available for this product.

Derived no-effect levels (DNELs) for Workers:

COMPONENT: Sodium Lauryl Sulphate (CAS No. 68891-38-3):

- Dermal exposure (Long-term, Systemic effects): 175 mg/m<sup>3</sup>

- Inhalation exposure (Long-term, Systemic effects): 2,750 mg/kg bw/day

**Exposure Limits:** No Data Available

**Biological Limits:** No information available.

### Engineering Measures:

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.



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### Personal Protection Equipment:

- Respiratory protection: Wear respiratory protection in case of inadequate ventilation or if inhalation hazards exist (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles; Face-shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Hand protection: Wear protective gloves. Recommended: Impervious gloves. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Personal protective equipment for the body, appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Special Hazards Precautions:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Work Hygienic Practices:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

### Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Mole 1 & 3 (Solid)/Mole 3 (Liquid 28%)
<b>Appearance:</b>	Paste (at room temperature)/Liquid
<b>Odour:</b>	Odourless
<b>Colour:</b>	Colourless to light yellow
<b>pH:</b>	7 - 9 (3 % w/w)
<b>Vapour Pressure:</b>	No Data Available
<b>Relative Vapour Density:</b>	No Data Available



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**Boiling Point:** No Data Available  
**Melting Point:** No Data Available  
**Freezing Point:** No Data Available  
**Solubility:** 280 g/L in water 20°C  
**Specific Gravity:** No Data Available  
**Flash Point:** >93 °C  
**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:** 1.07 - 1.1 g/cm<sup>3</sup>

**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.



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### Fast or Intensely Burning Characteristics:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

### Flame Propagation or Burning Rate of Solid Material:

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:

Combustible material; May burn but does not ignite readily.

### Reactions That Release Gases or Vapours:

Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including oxides of Sulfur.

### Release of Invisible Flammable Vapours and Gases:

No information available.

## Section 10: Stability and Reactivity Data

**General Information:** Under normal conditions of storage and use, hazardous reactions will not occur.

**Chemical Stability:** The product is stable.

**Conditions to Avoid:** Keep away from heat and sources of ignition.

**Materials to Avoid:** Incompatible/reactive with strong acids, oxidizing agents.

### Hazardous Decomposition Products:

Fire/decomposition may produce irritating, toxic and/or corrosive fumes, including oxides of Sulfur.

**Hazardous Polymerization:** Will not occur.

## Section 11: Toxicological Information

**General Information:**

- Acute toxicity: May be harmful if swallowed. Adverse symptoms may include stomach pains.

- Skin corrosion/irritation: Causes skin irritation. Adverse symptoms



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may include pain or irritation, redness, blistering may occur.

- Eye damage/irritation: Causes serious eye damage. Adverse

symptoms may include pain, watering, redness.

- Respiratory/skin sensitization: Component: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3): Not (skin) sensitizing (Guinea pig)

- Germ cell mutagenicity: COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3): Negative (in vitro): Bacterial reverse mutation test [OECD 471; Supplier's SDS]. Negative (in vitro): Mammalian cell gene mutation test [OECD 476].

- Carcinogenicity: No information available.

- Reproductive toxicity: No information available.

- STOT (single exposure): No information available.

- STOT (repeated exposure): No information available.

- Aspiration toxicity: No information available

### Acute Ingestion:

Acute toxicity (Oral):

COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3):

- LD50, Rat: 2,870 mg/kg bw. [OECD Guideline 401; ECHA].

### Other:

Acute toxicity (Dermal):

COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3):

- LD50, Rat: >2,000 mg/kg bw. [OECD Guideline 402; ECHA].

### Carcinogen Category:

None

## Section 12: Ecological Information

### Ecotoxicity:

Aquatic toxicity:

COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3):

- LC50, Fish (Danio rerio): 7.1 mg/l (96 h) Freshwater.

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- EC50, Crustacean (Daphnia magna): 7.2 mg/l (48 h) Freshwater.



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<b>Persistence/Degradability:</b>	<p>- NOEC, Crustacean (Daphnia magna): 0.18 mg/l (21 d) Freshwater.</p> <p>This product is readily biodegradable.</p> <p>COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3):</p> <p>- Ready biodegradability (DOC Die-Away Test): &gt;70% (28 d) [OECD 301A]</p>
<b>Mobility:</b>	No information available.
<b>Environmental Fate:</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Bioaccumulation Potential:</b>	<p>COMPONENT: Sodium Lauryl Ether Sulphate (CAS No. 68891-38-3):</p> <p>- Low bio-accumulative potential.</p> <p>- Log Pow: 0.3</p>
<b>Environmental Impact:</b>	No Data Available

### Section 13: Disposal Considerations

<b>General Information:</b>	The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable product(s) via a licensed waste disposal contractor and in accordance with local/regional/national regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
<b>Special Precautions for Land Fill:</b>	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

### Section 14: Transport Information

<b>Road and Rail Transport:</b>	Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.
<b>Marine Transport:</b>	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; non-dangerous goods.
<b>Air Transport:</b>	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; non-dangerous goods.



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### Section 15: Other Regulatory Information

According to the data available the product is not a regulated product. However one should observe the prescribed federal, state & local measures for dealing with chemicals.

**Hazard Symbols:** Xi

**Risk Phrases:**

**R38:** Irritating to skin.

**R41:** Risk of serious damage to eyes.

**Safety Advices:**

**S26:** In case of contact with eyes, rinse immediately with plenty of water and seek medical help.

**S39:** Wear eye/face protection.

### Section 16: Other Information

**Other Special Considerations:** Not available

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