SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:
Identification as on the label/Trade name: LI 700

Additional information:

Relevant identification uses of the substance and uses advised against:
Identified uses: For use as a surfactant.
Uses advised against: Use only as directed

Details of the supplier of the Safety Data Sheet:
NULANDIS, A Division of AECI Limited
14 Field Road, LILINTON

Emergency telephone numbers:
Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
Nulandis: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture
The mixture is classified according to

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard classes/Hazard categories</td>
<td>Hazard statement</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion (Category 1B)</td>
<td>H314</td>
<td></td>
</tr>
<tr>
<td>Eye irritation (Category 2)</td>
<td>H319</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>H335</td>
<td></td>
</tr>
</tbody>
</table>

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Corrosive to eyes and skin. Respiratory irritant.
Hazard pictograms:

Signal Word: Danger

**Hazard Statements:** H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

**Precautionary Statements:** P260 Do not breathe mist/ vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell.

**Special labelling of certain mixtures:** None

**Other hazards:** None

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

**Ingredients:**

<table>
<thead>
<tr>
<th>Substance name (IUPAC/EC)</th>
<th>CAS –No.</th>
<th>Concentration % by weight</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propionic acid</td>
<td>79-09-4</td>
<td>20-40%</td>
<td>Skin corrosion (Category 1B) H314. STOT SE 3 H335.</td>
</tr>
<tr>
<td></td>
<td>201-176-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol ethoxylate</td>
<td>34398-01-1</td>
<td>1-10%</td>
<td>Acute toxicity oral (Category 4) H302. Eye irritation (Category 2) H319.</td>
</tr>
<tr>
<td></td>
<td>500-084-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For full text of H statements see section 16*

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4. FIRST AID MEASURES

**Description of first aid measures:**

**In case of inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**In case of skin contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**In case of eye contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:
Inhalation: May cause respiratory irritation.
Ingestions: May be harmful if ingested.
Skin contact: Corrosive to the skin.
Eye contact: Corrosive to the eyes.

Indication of any immediate medical attention and special treatment needed:

SECTION 5. FIRE-FIGHTING MEASURE

Extinguisher media:
Suitable extinguisher media: Considered non-combustible; dry chemical, carbon dioxide, alcohol foam, foam, water spray or fog.
SMALL FIRE: Dry chemical, carbon dioxide, alcohol foam, foam, water spray or fog.
LARGE FIRE: Dry chemical, carbon dioxide, alcohol foam, foam, water spray or fog.

Unsuitable extinguishing media: None known.

Special hazards arising from the mixture:
May produce hazardous by-products.
Advice for fire-fighters:
Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Release or Spill: Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and an approved pesticide respirator or air-supplied respirator.
For emergency responders:
Release or Spill: Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and an approved pesticide respirator or air-supplied respirator.
Environmental precautions:
Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:
For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth
For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:
See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid prolonged contact with concentrate. 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. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat, drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:
Store product in a segregated and approved area above 4.4 °C. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Specific end uses:
Use as directed. Use original container, do not reuse container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):
Propionic acid: OEL-RL TWA 10ppm, 30 mg/m³, STEL 15ppm, 45 mg/m³, ACGIH TLV-TWA 30 mg/m³

Biological exposure indices (BEI):
None

Additional exposure limits under the conditions of use:

Exposure control:

Appropriate engineering controls: Local ventilation recommended. Work in well-ventilated area or outdoors.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use goggles or face shield

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Wear overalls and chemical resistant footwear.

Respiratory protection: Respiratory protection is required when ventilation is inadequate or discomfort is experienced; use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid
**Colour:** Dark brown.

**Odour:** Pungent odour.

**Odour threshold:** No information available.

**pH (1%):** 3.6

**Melting point/range (°C):** No information available

**Boiling point/range (°C):** No information available

**Flash point (°C):** 100 °C (closed cup)

**Evaporation rate:** No information available.

**Flammability (solid, gas):** No information available

**Ignition temperature (°C):** No information available.

**Upper/lower flammability/explosive limits:** No information available.

**Vapour pressure (20°C):** No information available.

**Vapour density:** No information available.

**Density (20°C):** 1.24 (AM-01)

**Water solubility (g/l) at 20°C:** Miscible.

**n-Octanol/Water partition coefficient:** No information available

**Auto-ignition temperature:** No information available.

**Decomposition temperature:** No information available.

**Viscosity, dynamic (mPa s):** No information available.

**Physical hazards:**

**Explosive properties:** No information available

**Other information:**

**Fat solubility (solvent-oil to be specified):** No information available.

**Bulk density:** 1.0353 t/m³
Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND RELIABILITY

Reactivity:
The product is stable under normal conditions. Keep in cool, well-ventilated place.

Chemical stability:
Stable will not polymerize.

Possibility of hazardous reactions:
No information available.

Conditions to avoid:
No information available.

Incompatible materials:
Strong oxidising agents, alkalis and most metals.

Hazardous decomposition products:
No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion: No Information available.

Information on toxicological effects:

Acute toxicity

Li 700

Acute oral LD₅₀ for male rat > 5.0 g/kg.

Dermal LD₅₀ for rats > 5.0 g/kg.

Inhalation LC₅₀ (4 h) for rat > 6.04 mg/ℓ.
Chronic toxicity: No information available.

Skin corrosion/irritation:
Li 700
Skin Irritation for rabbit- severely irritating.

Serious eye damage/irritation:
Li 700
Eye Irritation for rabbit- Severe irritant.

Respiratory or skin sensitization:
Li 700
Skin Sensitization for guinea pig- not a sensitizer

Germ cell mutagenicity: No information available.

Carcinogenicity:
Li 700
Nothing listed in IARC, ACGIH, NTP or OSHA.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Aquatic Acute Toxicity
Li 700
Fish: LC₅₀ (24 h) for Rainbow trout 140 mg/ℓ, (48 h) 130 mg/ℓ, (96 h) <100 mg/ℓ.
LC₅₀ (24 h) for Bluegill sunfish 220 mg/ℓ, (48 h) 210 mg/ℓ, (96 h) 100 mg/ℓ.
Daphnia: LC₅₀ (24 h) for Daphnia magna 450 mg/ℓ, (48 h) 170 mg/ℓ, (96 h) 100 mg/ℓ.

Persistence and degradability:
No information available.

Bioaccumulative potential:
No information available.

Mobility in soil
No information available.

Results of PBT & vPvB assessment:
**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods:**
Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

**Product/ packaging disposal:**
Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

**SECTION 14. TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th></th>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO/IATA)</th>
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</thead>
<tbody>
<tr>
<td>UN-Number</td>
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<td>3265</td>
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<tr>
<td>UN Proper shipping name</td>
<td>CORROSIVE LIQUID, ACIDIC ORGANIC N.O.S</td>
<td>CORROSIVE LIQUID, ACIDIC ORGANIC N.O.S</td>
<td>CORROSIVE LIQUID, ACIDIC ORGANIC N.O.S</td>
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<tr>
<td>Packaging group</td>
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<tr>
<td>Marine pollutant</td>
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<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Transport in bulk according to MARPOL 73/78 Annex II and the IBC code</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
</tbody>
</table>

**Inland waterways:** No information.

**Emergency response information:** No information.

**SECTION 15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation for the mixture:**

**Relevant information regarding authorization:** Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

**ACGIH:** American Conference of Governmental Industrial Hygienists (ACGIH)

**Relevant information regarding restrictions:**

**EU regulations:** Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

**Other National regulations:** National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

**Chemical Safety Assessment carried out?** No

**SECTION 16. OTHER INFORMATION**

**Indication of changes:**
GHS aligned

**Relevant classification and H statements (number and full text):**

STOT SE 3- Specific Target Organ Toxicity single exposure (Category 3).
H302 Harmful if swallowed. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

**Training instructions:**
Use as indicated on the label, special training may be required for application.

**Further information:**
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**Notice to readers:**
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.