

# LE4022 Quinplex Food Machinery Lubricant H1

Lubrication Engineers NZ Ltd

Chemwatch Hazard Alert Code: 2

Chemwatch: 42-9988

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Version No: 5.1.1.1

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Safety Data Sheet according to HSNO Regulations

S.GHS.NZL.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

|                               |   |
|-------------------------------|---|
| Product name                  | LE4022 Quinplex Food Machinery Lubricant H1 |
| Synonyms                      | Not Available                               |
| Other means of identification | Not Available                               |

### Relevant identified uses of the substance or mixture and uses advised against

|                          |  |
|--------------------------|--|
| Relevant identified uses | Lubricant<br>Use according to manufacturer's directions. |
|--------------------------|--|

### Details of the supplier of the safety data sheet

|                         |   |
|-------------------------|---|
| Registered company name | Lubrication Engineers NZ Ltd  |
| Address                 | 11F Piermark Drive North Harbour Industrial Estate Albany, Auckland New Zealand |
| Telephone               | +64 09 415 9411   |
| Fax                     | +64 09 4158411  |
| Website                 | Not Available   |
| Email                   | Not Available   |

### Emergency telephone number

|                                   |                              |
|-----------------------------------|------------------------------|
| Association / Organisation        | Lubrication Engineers NZ Ltd |
| Emergency telephone numbers       | +64 21 3385487               |
| Other emergency telephone numbers | Not Available                |

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.**

#### CHEMWATCH HAZARD RATINGS

|              | Min | Max |  |
|--------------|-----|-----|--|
| Flammability | 1   | 2   |  |
| Toxicity     | 0   | 1   |  |
| Body Contact | 2   | 3   |  |
| Reactivity   | 1   | 2   |  |
| Chronic      | 1   | 2   |  |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|   |  |
|---|--|
| Classification [1]                              | Skin Sensitizer Category 1, Lactation Effects, Specific target organ toxicity - single exposure Category 2, Specific target organ toxicity - repeated exposure Category 2, Chronic Aquatic Hazard Category 2 |
| Legend:   | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI   |
| Determined by Chemwatch using GHS/HSNO criteria | 6.5B (contact), 6.8C, 6.9B, 9.1B   |

Continued...

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**Label elements**

|                     |   |
|---------------------|---|
| Hazard pictogram(s) |  |
|---------------------|---|

|             |                |
|-------------|----------------|
| SIGNAL WORD | <b>WARNING</b> |
|-------------|----------------|

**Hazard statement(s)**

|      |  |
|------|--|
| H317 | May cause an allergic skin reaction.                               |
| H362 | May cause harm to breast-fed children.                             |
| H371 | May cause damage to organs.  |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                   |

**Precautionary statement(s) Prevention**

|      |  |
|------|--|
| P201 | Obtain special instructions before use.                                    |
| P260 | Do not breathe mist/vapours/spray.   |
| P263 | Avoid contact during pregnancy and while nursing.                          |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

**Precautionary statement(s) Response**

|           |   |
|-----------|---|
| P321      | Specific treatment (see advice on this label).                              |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap.                             |
| P308+P311 | IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider. |
| P314      | Get medical advice/attention if you feel unwell.                            |

**Precautionary statement(s) Storage**

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

**Precautionary statement(s) Disposal**

|      |  |
|------|--|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|--|

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No    | %[weight] | Name                                    |
|-----------|-----------|---|
| 8042-47-5 | >60       | <u>white mineral oil (petroleum)</u>    |
| 1314-13-2 | 1-5       | <u>zinc oxide</u>                       |
| 128-37-0  | 0.1-1     | <u>2,6-di-tert-butyl-4-methylphenol</u> |
| 79-09-4   | NotSpec   | <u>propionic acid</u>                   |

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

|              |  |
|--------------|--|
| Eye Contact  | <p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| Skin Contact | <p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>   |

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|                   |   |
|-------------------|---|
| <b>Inhalation</b> | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>           |
| <b>Ingestion</b>  | <ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul> |

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

- ▶ Water spray or fog.
- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ Carbon dioxide.

**Special hazards arising from the substrate or mixture**

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

**Advice for firefighters**

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>   |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.<br/>May emit poisonous fumes.</p> <p><b>CARE:</b> Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.</p> |

**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

|                     |   |
|---------------------|---|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ Wear impervious gloves and safety goggles.</li> <li>▶ Trowel up/scrape up.</li> </ul>   |
| <b>Major Spills</b> | <p>Minor hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Control personal contact with the substance, by using protective equipment as required.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE****Precautions for safe handling**

|                      |   |
|----------------------|---|
| <b>Safe handling</b> | <ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> </ul> |
|----------------------|---|

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|                          |  |
|--------------------------|--|
|                          | <ul style="list-style-type: none"> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>  |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> </ul> |

**Conditions for safe storage, including any incompatibilities**

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>  |
| <b>Storage incompatibility</b> | <p><b>CARE:</b> Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.</p> <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul> |



+ X + O + + +

- X — Must not be stored together
- O — May be stored together with specific precautions
- + — May be stored together

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

**INGREDIENT DATA**

| Source   | Ingredient                       | Material name   | TWA                           | STEL                 | Peak          | Notes  |
|--|----------------------------------|---|-------------------------------|----------------------|---------------|--|
| New Zealand Workplace Exposure Standards (WES) | white mineral oil (petroleum)    | Oil mist, mineral                                     | 5 mg/m <sup>3</sup>           | 10 mg/m <sup>3</sup> | Not Available | (om) - Sampled by a method that does not collect vapour. |
| New Zealand Workplace Exposure Standards (WES) | zinc oxide                       | Zinc oxide fume                                       | 3 mg/m <sup>3</sup>           | 10 mg/m <sup>3</sup> | Not Available | (r) - The value for respirable dust.                     |
| New Zealand Workplace Exposure Standards (WES) | zinc oxide                       | Zinc oxide Dust                                       | 10 mg/m <sup>3</sup>          | Not Available        | Not Available | (r) - The value for respirable dust.                     |
| New Zealand Workplace Exposure Standards (WES) | 2,6-di-tert-butyl-4-methylphenol | 2,6-Di-tert-butyl-p-cresol (Butylated hydroxytoluene) | 10 mg/m <sup>3</sup>          | Not Available        | Not Available | Not Available  |
| New Zealand Workplace Exposure Standards (WES) | propionic acid                   | Propionic acid  | 10 ppm / 30 mg/m <sup>3</sup> | Not Available        | Not Available | Not Available  |


**EMERGENCY LIMITS**

| Ingredient                       | Material name  | TEEL-1               | TEEL-2               | TEEL-3                  |
|----------------------------------|--|----------------------|----------------------|-------------------------|
| zinc oxide                       | Zinc oxide   | 10 mg/m <sup>3</sup> | 15 mg/m <sup>3</sup> | 2,500 mg/m <sup>3</sup> |
| 2,6-di-tert-butyl-4-methylphenol | Bis(1,1-dimethylethyl)-4-methylphenol, 2,6-; (BHT (food grade)); 2,6-Di-tert-butyl-p-cresol) | 6 mg/m <sup>3</sup>  | 29 mg/m <sup>3</sup> | 180 mg/m <sup>3</sup>   |
| propionic acid                   | Propionic acid   | 15 ppm               | 28 ppm               | 170 ppm                 |

| Ingredient                       | Original IDLH           | Revised IDLH  |
|----------------------------------|-------------------------|---------------|
| white mineral oil (petroleum)    | 2,500 mg/m <sup>3</sup> | Not Available |
| zinc oxide                       | 500 mg/m <sup>3</sup>   | Not Available |
| 2,6-di-tert-butyl-4-methylphenol | Not Available           | Not Available |
| propionic acid                   | Not Available           | Not Available |

**Exposure controls**

|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to |
|---|---|

|                                |  |
|--------------------------------|--|
|                                | provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.  |
| <b>Personal protection</b>     |   |
| <b>Eye and face protection</b> | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.</li> </ul> |
| <b>Skin protection</b>         | See Hand protection below  |
| <b>Hands/feet protection</b>   | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>   |
| <b>Body protection</b>         | See Other protection below   |
| <b>Other protection</b>        | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> </ul>   |

## Recommended material(s)

### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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| Material | CPI |
|----------|-----|
| PE       | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type AB-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator   |
|------------------------------------|----------------------|----------------------|--------------------------|
| up to 10 x ES                      | AB-AUS P2            | -                    | AB-PAPR-AUS / Class 1 P2 |
| up to 50 x ES                      | -                    | AB-AUS / Class 1 P2  | -                        |
| up to 100 x ES                     | -                    | AB-2 P2              | AB-PAPR-2 P2 ^           |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                       |   |                                     |      |
|-----------------------|---|-------------------------------------|------|
| <b>Appearance</b>     | White paste with a hydrocarbon-like odour; not miscible with water. |                                     |      |
| <b>Physical state</b> | Non Slump Paste   | <b>Relative density (Water = 1)</b> | 0.95 |

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|   |                |  |                |
|---|----------------|--|----------------|
| <b>Odour</b>  | Not Available  | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available  | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | 6-8            | <b>Decomposition temperature</b>               | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available  | <b>Viscosity (cSt)</b>                         | Not Applicable |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available  | <b>Molecular weight (g/mol)</b>                | Not Applicable |
| <b>Flash point (°C)</b>                             | 216            | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available  | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | Not Applicable | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | Not Available  | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available  |
| <b>Lower Explosive Limit (%)</b>                    | Not Available  | <b>Volatile Component (%vol)</b>               | Not Available  |
| <b>Vapour pressure (kPa)</b>                        | Not Available  | <b>Gas group</b>                               | Not Available  |
| <b>Solubility in water</b>                          | Immiscible     | <b>pH as a solution (1%)</b>                   | Not Available  |
| <b>Vapour density (Air = 1)</b>                     | <1             | <b>VOC g/L</b>                                 | Not Available  |

## SECTION 10 STABILITY AND REACTIVITY

|   |   |
|---|---|
| <b>Reactivity</b>                         | See section 7   |
| <b>Chemical stability</b>                 | Product is considered stable and hazardous polymerisation will not occur. |
| <b>Possibility of hazardous reactions</b> | See section 7   |
| <b>Conditions to avoid</b>                | See section 7   |
| <b>Incompatible materials</b>             | See section 7   |
| <b>Hazardous decomposition products</b>   | See section 5   |

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

|                     |  |
|---------------------|--|
| <b>Inhaled</b>      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.  |
| <b>Ingestion</b>    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.   |
| <b>Skin Contact</b> | The liquid may be able to be mixed with fats or oils and may decrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. Open cuts, abraded or irritated skin should not be exposed to this material. The material may accentuate any pre-existing dermatitis condition |
| <b>Eye</b>          | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).   |
| <b>Chronic</b>      | Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet.  |

|  |  |  |
|--|--|--|
| <b>LE4022 Quinplex Food Machinery Lubricant H1</b> | <b>TOXICITY</b>                                    | <b>IRRITATION</b>  |
|  | Not Available                                      | Not Available  |
| <b>white mineral oil (petroleum)</b>               | <b>TOXICITY</b>                                    | <b>IRRITATION</b>  |
|  | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|  | Inhalation (rat) LC50: 7.64 mg/l4 h <sup>[1]</sup> | Skin: adverse effect observed (irritating) <sup>[1]</sup>        |
|  | Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>        | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |

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|                                  |   |   |
|----------------------------------|---|---|
| zinc oxide                       | <b>TOXICITY</b>   | <b>IRRITATION</b>   |
|                                  | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>   | Eye (rabbit) : 500 mg/24 h - mild                               |
|                                  | Inhalation (rat) LC50: >1.79 mg/l4 h <sup>[1]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup> |
|                                  | Oral (rat) LD50: >5000 mg/kg <sup>[2]</sup>   | Skin (rabbit) : 500 mg/24 h - mild                              |
| 2,6-di-tert-butyl-4-methylphenol | <b>TOXICITY</b>   | <b>IRRITATION</b>   |
|                                  | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>   | Eye (rabbit): 100 mg/24h-moderate                               |
|                                  | Oral (rat) LD50: 890 mg/kg <sup>[2]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup> |
|                                  |   | Skin (human): 500 mg/48h - mild                                 |
|                                  |   | Skin (rabbit):500 mg/48h-moderate                               |
|                                  | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |   |
| propionic acid                   | <b>TOXICITY</b>   | <b>IRRITATION</b>   |
|                                  | Dermal (rabbit) LD50: 495 mg/kg <sup>[2]</sup>  | Eye (rabbit): 990 mg - SEVERE                                   |
|                                  | Inhalation (rat) LC50: >4.9 mg/l/4H <sup>[2]</sup>  | Eye: adverse effect observed (irritating) <sup>[1]</sup>        |
|                                  | Oral (rat) LD50: >400 mg/kg <sup>[2]</sup>  | Skin (rabbit):495 mg(open)-SEVERE                               |
|                                  |   | Skin: adverse effect observed (corrosive) <sup>[1]</sup>        |
|                                  | Skin: adverse effect observed (irritating) <sup>[1]</sup>   |   |
| <b>Legend:</b>                   | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances |   |

|   |   |
|---|---|
| <b>WHITE MINERAL OIL (PETROLEUM)</b>    | Oral (rat) TClO: 92000 mg/kg/92D-Cont. Generally the toxicity and irritation is of low order. White oils and highly/solvent refined oils have not shown the long term risk of skin cancer that follows persistent skin contamination with some other mineral oils, due in all probability to refining that produces low content of both polyaromatics (PAH) and benz-alpha-pyrenes (BaP)  |
| <b>2,6-DI-TERT-BUTYL-4-METHYLPHENOL</b> | <p>for bridged alkyl phenols:</p> <p><b>Acute toxicity:</b> Acute oral and dermal toxicity data are available for all but two of the substances in the group. The data show that acute toxicity of these substances is low. The testing for acute toxicity spans five decades</p> <p><b>Repeat dose toxicity:</b> Repeat dose studies on the members of this category include both subchronic and chronic exposures. The liver is identified as the target organ in rats for all of the substances tested. Data show that acute toxicity following oral and topical use of hindered phenols is low. They are not proven to cause mutations. However, long term use may affect the liver, thyroid, kidney and lymph nodes. Liver tumours have been reported.</p> <p><b>NOTE:</b> Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.</p> <p>* Degussa SDS Effects such as behavioral changes, reduction in body weight gain, and decrement in body weight have been observed after long-term administration of BHT to mice and rats. Toxic effects may be attributed more to BHT metabolites than to their parent compound, only a few studies have focused on their carcinogenicity and toxicity, and not only on that of BHT. The metabolite BHT-QM (syn: 2,6-di-tert-butyl-1,4-methylene-2,5-cyclohexadien-1-one, CAS RN: 2607-52-5) is a very reactive compound which is considered to play a significant role in hepatotoxicity, pneumotoxicity, and skin tumor promotion in mice. In addition, it was reported that another quinone derivative, BHT-OH(t)QM (syn 2-tert-butyl-6-(2-hydroxy-tert-butyl-4-methylene-2,5-cyclohexadien-1-one, CAS RN: 124755-19-7), is chemically more reactive than BHT-QM, and it has been recognized as the principal metabolite responsible for lung tumor promotion activity of BHT in mice. BHT has been reported to exert prooxidant effects under certain conditions. Thus, when BHT was added in excess to a wheat seedling medium in aerobic conditions, an enhancement of the generation rate of superoxide anion was observed. This is a reactive particle that may damage cellular structures at high concentrations In addition, an increase in hepatic microsomal lipid peroxidation was observed in rats fed with diets containing 0.2% of BHT for 30 days. Due to this ability of BHT to exert prooxidant effects at high concentrations, it has been used to induce experimental models of oxidative stress in several animals and fungi in order to study the protective effects of other compounds. Some authors have reported that at high aeration rate, BHT can react with molecular oxygen rather than with the reactive oxygen species present, yielding BHT-phenoxyl radical and superoxide anion. In addition, the phenolic radical itself may undergo redox recycling which can be a critical factor depending on the reductant involved However, it has to be noted that BHT-phenoxyl radical has been reported to be relatively stable. Furthermore, the potential reactivity of BHT-derived metabolites should be taken into account; some studies reported that not only BHT but also its metabolites, such as BHT-Q and BHT-QM, can act as prooxidant. As BHT undergoes several reactions during biotransformation, a large number of intermediate metabolites have been identified. However, their nature and concentration depend on the environmental conditions and on the animal species. Although the changes undergone by BHT during in vivo digestion processes have not been studied, after submission of a fluid deep-frying fat containing BHT and BHT-QM to an in vitro gastrointestinal digestion model, both these were detected in the digested samples. These results indicate that BHT and its toxic metabolite could remain bioaccessible for intestinal absorption. Studies concerning BHT metabolism have shown that, unlike other synthetic antioxidants, BHT is a potent inducer of the microsomal monooxygenase system and its major route of degradation is oxidation catalyzed by cytochrome P450. Studies have reported potential toxicity derived from the ingestion or administration of BHT. As for acute oral toxicity, although this is considered low in animals, it must be noted that 2 clinical cases were reported in patients who suffered acute neurotoxicity and gastritis after ingesting a high dose of BHT (4 and 80 g without medical prescription) to cure recurrent genital herpes. Regarding</p> |

LE4022 Quinplex Food Machinery Lubricant H1

|  |  |
|--|--|
|  | short-term subchronic toxicity studies, it has been reported that BHT causes dose-related increase in the incidence and severity   |
| <b>PROPIONIC ACID</b>  | The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.<br>The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.  |
| <b>LE4022 Quinplex Food Machinery Lubricant H1 &amp; WHITE MINERAL OIL (PETROLEUM)</b> | The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since: <ul style="list-style-type: none"> <li>The adverse effects of these materials are associated with undesirable components, and</li> <li>The levels of the undesirable components are inversely related to the degree of processing;</li> <li>Distillate base oils receiving the same degree or extent of processing will have similar toxicities;</li> <li>The potential toxicity of residual base oils is independent of the degree of processing the oil receives.</li> <li>The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.</li> </ul> Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size.<br>Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.<br>For highly and severely refined distillate base oils:<br>In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from “non-irritating” to “moderately irritating” when tested for skin and eye irritation. Testing for sensitisation has been negative. |
| <b>WHITE MINERAL OIL (PETROLEUM) &amp; 2,6-DI-TERT-BUTYL-4-METHYLPHENOL</b>            | The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing.   |
| <b>ZINC OXIDE &amp; 2,6-DI-TERT-BUTYL-4-METHYLPHENOL</b>                               | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.   |
| <b>2,6-DI-TERT-BUTYL-4-METHYLPHENOL &amp; PROPIONIC ACID</b>                           | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.  |

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✗ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✗ | <b>STOT - Single Exposure</b>   | ✓ |
| <b>Respiratory or Skin sensitisation</b> | ✓ | <b>STOT - Repeated Exposure</b> | ✓ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification  
✓ – Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

|  | ENDPOINT      | TEST DURATION (HR) | SPECIES                       | VALUE         | SOURCE        |
|--|---------------|--------------------|-------------------------------|---------------|---------------|
| <b>LE4022 Quinplex Food Machinery Lubricant H1</b> | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| <b>white mineral oil (petroleum)</b>               | LC50          | 96                 | Fish                          | 1.13mg/L      | 2             |
|  | EC50          | 48                 | Crustacea                     | 2mg/L         | 2             |
|  | EC50          | 72                 | Algae or other aquatic plants | 1.714mg/L     | 2             |



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| zinc oxide | ENDPOINT | TEST DURATION (HR) | SPECIES                       | VALUE           | SOURCE |
|------------|----------|--------------------|-------------------------------|-----------------|--------|
|            | LC50     | 96                 | Fish                          | 0.001-0.58mg/L  | 2      |
|            | EC50     | 48                 | Crustacea                     | 0.001-0.014mg/L | 2      |
|            | EC50     | 72                 | Algae or other aquatic plants | 0.037mg/L       | 2      |
|            | BCF      | 336                | Fish                          | 4376.673mg/L    | 4      |
|            | NOEC     | 72                 | Algae or other aquatic plants | 0.00008138mg/L  | 2      |

| 2,6-di-tert-butyl-4-methylphenol | ENDPOINT | TEST DURATION (HR) | SPECIES                       | VALUE     | SOURCE |
|----------------------------------|----------|--------------------|-------------------------------|-----------|--------|
|                                  | LC50     | 96                 | Fish                          | 0.199mg/L | 2      |
|                                  | EC50     | 48                 | Crustacea                     | >0.17mg/L | 2      |
|                                  | EC50     | 96                 | Algae or other aquatic plants | 0.228mg/L | 3      |
|                                  | NOEC     | 504                | Crustacea                     | 0.023mg/L | 2      |

| propionic acid | ENDPOINT | TEST DURATION (HR) | SPECIES                       | VALUE    | SOURCE |
|----------------|----------|--------------------|-------------------------------|----------|--------|
|                | LC50     | 96                 | Fish                          | >10-mg/L | 2      |
|                | EC50     | 48                 | Crustacea                     | 22.7mg/L | 2      |
|                | EC50     | 96                 | Algae or other aquatic plants | =43mg/L  | 1      |
|                | EC20     | 96                 | Algae or other aquatic plants | =12mg/L  | 1      |
|                | NOEC     | 96                 | Fish                          | >=5-mg/L | 2      |

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the oxygen transfer between the air and the water

Oils of any kind can cause:

- ▶ drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- ▶ lethal effects on fish by coating gill surfaces, preventing respiration
- ▶ asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- ▶ adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.

**for lubricating oil base stocks:**

**Vapor Pressure** Vapor pressures of lubricating base oils are reported to be negligible. In one study, the experimentally measured vapour pressure of a solvent-dewaxed heavy paraffinic distillate base oil was  $1.7 \times 10^{-4}$  Pa . Since base oils are mixtures of C15 to C50 paraffinic, naphthenic, and aromatic hydrocarbon isomers, representative components of those structures were selected to calculate a range of vapor pressures. The estimated vapor pressure values for these selected components of base oils ranged from  $4.5 \times 10^{-1}$  Pa to  $2 \times 10^{-13}$ Pa.

**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

| Ingredient                       | Persistence: Water/Soil | Persistence: Air |
|----------------------------------|-------------------------|------------------|
| 2,6-di-tert-butyl-4-methylphenol | HIGH                    | HIGH             |
| propionic acid                   | LOW                     | LOW              |

**Bioaccumulative potential**

| Ingredient                       | Bioaccumulation     |
|----------------------------------|---------------------|
| zinc oxide                       | LOW (BCF = 217)     |
| 2,6-di-tert-butyl-4-methylphenol | HIGH (BCF = 2500)   |
| propionic acid                   | LOW (LogKOW = 0.33) |

**Mobility in soil**

| Ingredient | Mobility |
|------------|----------|
|------------|----------|

|                                  |                    |
|----------------------------------|--------------------|
| 2,6-di-tert-butyl-4-methylphenol | LOW (KOC = 23030)  |
| propionic acid                   | HIGH (KOC = 1.201) |

## SECTION 13 DISPOSAL CONSIDERATIONS

### Waste treatment methods

|                                     |   |
|-------------------------------------|---|
| <b>Product / Packaging disposal</b> | <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|-------------------------------------|---|

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017


### Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

## SECTION 14 TRANSPORT INFORMATION

### Labels Required

|                         |   |
|-------------------------|---|
| <b>Marine Pollutant</b> |  |
| <b>HAZCHEM</b>          | Not Applicable  |

**Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

## SECTION 15 REGULATORY INFORMATION

### Safety, health and environmental regulations / legislation specific for the substance or mixture

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard   |
|------------|--|
| HSR002606  | Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2017 |

### WHITE MINERAL OIL (PETROLEUM) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Chemical Footprint Project - Chemicals of High Concern List

IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1 : Carcinogenic to humans

International FOSFA List of Banned Immediate Previous Cargoes

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

### ZINC OXIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations  
 International Maritime Dangerous Goods Requirements (IMDG Code)  
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals  
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)  
 New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1  
 Quantity limits  
 New Zealand Workplace Exposure Standards (WES)  
 United Nations Recommendations on the Transport of Dangerous Goods  
 Model Regulations

#### 2,6-DI-TERT-BUTYL-4-METHYLPHENOL IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles  
 IMO IBC Code Chapter 17: Summary of minimum requirements  
 IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
 International Agency for Research on Cancer (IARC) - Agents Classified by  
 the IARC Monographs  
 International Air Transport Association (IATA) Dangerous Goods Regulations  
 International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals  
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals - Classification Data  
 New Zealand Inventory of Chemicals (NZIoC)  
 New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1  
 Quantity limits  
 New Zealand Workplace Exposure Standards (WES)  
 United Nations Recommendations on the Transport of Dangerous Goods  
 Model Regulations

#### PROPIONIC ACID IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles  
 IMO IBC Code Chapter 17: Summary of minimum requirements  
 IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
 International Air Transport Association (IATA) Dangerous Goods Regulations  
 International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals  
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -  
 Classification of Chemicals - Classification Data  
 New Zealand Inventory of Chemicals (NZIoC)  
 New Zealand Workplace Exposure Standards (WES)  
 United Nations Recommendations on the Transport of Dangerous Goods  
 Model Regulations

#### Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class   | Quantity beyond which controls apply for closed containers | Quantity beyond which controls apply when use occurring in open containers |
|----------------|--|--|
| Not Applicable | Not Applicable   | Not Applicable   |

#### Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities     |
|--------------------|----------------|
| Not Applicable     | Not Applicable |

Refer Group Standards for further information

#### Tracking Requirements

Not Applicable

#### National Inventory Status

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | Yes  |
| Canada - DSL                  | Yes  |
| Canada - NDSL                 | No (propionic acid; white mineral oil (petroleum)) |
| China - IECSC                 | Yes  |
| Europe - EINEC / ELINCS / NLP | Yes  |
| Japan - ENCS                  | No (white mineral oil (petroleum))                 |
| Korea - KECI                  | Yes  |
| New Zealand - NZIoC           | Yes  |
| Philippines - PICCS           | Yes  |
| USA - TSCA                    | Yes  |
| Taiwan - TCSI                 | Yes  |
| Mexico - INSQ                 | Yes  |

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|                |  |
|----------------|--|
| Vietnam - NCI  | Yes  |
| Russia - ARIPS | Yes  |
| <b>Legend:</b> | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 OTHER INFORMATION

|                      |            |
|----------------------|------------|
| <b>Revision Date</b> | 01/11/2019 |
| <b>Initial Date</b>  | 12/09/2014 |

## SDS Version Summary

| Version | Issue Date | Sections Updated   |
|---------|------------|--|
| 5.1.1.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

## Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
 PC—STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 STEL: Short Term Exposure Limit  
 TEEL: Temporary Emergency Exposure Limit,  
 IDLH: Immediately Dangerous to Life or Health Concentrations  
 OSF: Odour Safety Factor  
 NOAEL :No Observed Adverse Effect Level  
 LOAEL: Lowest Observed Adverse Effect Level  
 TLV: Threshold Limit Value  
 LOD: Limit Of Detection  
 OTV: Odour Threshold Value  
 BCF: BioConcentration Factors  
 BEI: Biological Exposure Index

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TEL (+61 3) 9572 4700.