

## MATERIAL SAFETY DATA SHEET

### **LUBENZ NANO GREASE LITHIUM BASE MP2**

#### **1. Chemical and Company Identification**

|                             |                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Trade Name</b>           | LUBENZ NANO GREASE LITHIUM BASE MP2                                                                                                            |
| <b>Supplier</b>             | JLT 20th Floor<br>Fortune Executive Tower<br>Cluster T<br>Dubai, UAE<br><a href="http://www.lubenzlubricants.com">www.lubenzlubricants.com</a> |
| <b>Chemical Description</b> | Grease                                                                                                                                         |

#### **2. Composition and Ingredients**

| <b>Components</b>                                                                                                                                                       | <b>CAS No.</b> | <b>Range in %</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|
| <b>Pale Oil</b>                                                                                                                                                         | 64742569       | <5                |
| <b>Vacuum Residuum</b>                                                                                                                                                  | 64741566       | <5                |
| <b>Additives which may include thickeners, antioxidants, rust inhibitors, extreme pressure agents, demulsifiers, tackifiers, antifoam agent and corrosion inhibitor</b> |                | <5                |
| <b>Hydrotreated residual oil</b>                                                                                                                                        | 64742570       | 0-60              |
| <b>Solvent refined heavy naphthenic distillate</b>                                                                                                                      | 64741964       | 0-60              |
| <b>Solvent refined residual oil</b>                                                                                                                                     | 64742014       | 0-60              |
| <b>Hydrotreated heavy naphthenic distillate</b>                                                                                                                         | 64742525       | 0-60              |

### 3. Hazards Identification

|                                |                                                                                                                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Warning Statements</b>      | HANDLE MATERIAL IN PRESSURE EQUIPMENT WITH CARE.<br>ACCIDENTAL INJECTION CAN CAUSE SERIOUS TISSUE DAMAGE                                                                                                                                                    |
| <b>Eyes</b>                    | Expected to cause no more than minor eye irritation                                                                                                                                                                                                         |
| <b>Oral</b>                    | Not expected to be an ingestion problem                                                                                                                                                                                                                     |
| <b>Inhalation</b>              | Product not volatile at ambient temperatures. Vapors, mist or fumes in high concentrations, as generated from spraying or heating in an enclosed space, may cause eye irritation                                                                            |
| <b>Skin</b>                    | May cause skin irritation. Prolonged or frequently repeated contact may cause more severe irritation or may cause the skin to become cracked or dry from the defatting action of this material. See Long Term Toxic Effects and Section 11 for more details |
| <b>Long Term Toxic Effects</b> | Suspected cancer hazard. Contains a component(s) that may cause cancer. Risk of cancer depends on duration and level of exposure. See Section 11 for more details.                                                                                          |

### 4. First Aid Measures

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Eyes</b>             | Flush eyes immediately with fresh water for several minutes while holding the eyelids open. If irritation persists, see a doctor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Skin</b>             | Wash skin thoroughly with soap and water. Launder contaminated clothing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ingestion</b>        | If swallowed and person is conscious, give water or milk. DO NOT make person vomit except on advice of medical personnel. If advice cannot be obtained, take person with container and label to nearest emergency treatment center. Never give anything by mouth to an unconscious person                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Inhalation</b>       | This material is not expected to be an acute inhalation problem under typical applications. However, if exposed to excessive levels of fumes, mists or dusts, remove to fresh air and get medical attention.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Advice to Doctor</b> | <p>High pressure equipment can cause small, obtain bloodless punctured wounds where material may have been injected deep into the extremity. With 24 hours, there is usually extensive swelling, discoloration and intense pain in the affected part. Requires immediate treatment at a surgical emergency center; else disfigurement or amputation of the affected part may occur.</p> <p>Treatment of high pressure wounds may include: 1) surgical decompression, debridement and drainage. 2) broad-spectrum antibiotic and 3) anti-inflammatory medication. See Shoo M.J. et al. High Pressure Injection injuries of the hand. J Trauma 20:229-238, 1980</p> |

## 5. Fire Fighting Measures

|                                       |                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ignition Temperature, °C</b>       | 180 (min)                                                                                                                                                                                                                                                                                                                                         |
| <b>Flammable Limits (% by Volume)</b> | Not determined                                                                                                                                                                                                                                                                                                                                    |
| <b>Flash Point, °C</b>                | 180 (min)                                                                                                                                                                                                                                                                                                                                         |
| <b>Fire Extinguishing Agents</b>      | According to the US National Fire Protection Association Guide, use water spray, dry chemical, foam or carbondioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to provide protection for personal attempting to stop the leak |
| <b>Explosion Hazards</b>              | For fires involving this material, do not enter any enclosed or confined space without self-contained breathing apparatus to protect against the hazardous effects of combustion products or oxygen deficiency                                                                                                                                    |

## 6. Accidental Release Measures

|                         |                                                                                                                                                                                                                                                                                                                                          |
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| <b>In case of Spill</b> | Shovel up material and place in a disposable container, observing precautions outlined in this MSDS. Scrub contaminated area with detergent and water using stiff broom or mop. Pick up liquid with an absorbent and place in a disposable container. Avoid eye and skin contact. Prevent contamination of groundwater or surface water. |
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## 7. Handling and Storage

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimised. Water contamination should be avoided.

## 8. Exposure Control/Personal Protection

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Eyes</b>            | No special eye protection is usually necessary                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Skin</b>            | Avoid prolonged or frequently repeated contact with this material. Skin contact can be minimized by wearing impervious protective clothing including gloves. Protective clothing made from neoprene, nitrile or n-butyl rubber is suitable in these applications. Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water and laundering or dry cleaning soiled work clothing at least weekly. |
| <b>Inhalation</b>      | None required when handling at minimum feasible temperatures                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ventilation</b>     | Under normal applications of this product, general dilution ventilation is adequate                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Exposure Limits</b> | None established for product.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 9. Physical and Chemical Properties

Note: The following data may represent a range of approximate or typical values for products in the same family. Precise technical information is provided in Product Bulletins and can be obtained from your Marketing Representative.

|                                       |                |
|---------------------------------------|----------------|
| <b>Appearance and Odour</b>           | YELLOW GREASE  |
| <b>Boiling Point</b>                  | >180°C         |
| <b>Vapour Pr (mmHG @ 25 °C)</b>       | Not determined |
| <b>Density( kg/l at 15 °C)</b>        | Not determined |
| <b>Vapour Density (Air=1)</b>         | Not determined |
| <b>Undiluted product's pH</b>         | Not applicable |
| <b>Solubility in Water</b>            | Negligible     |
| <b>Percent Volatile by Volume</b>     | Not determined |
| <b>Evaporation</b>                    | Not determined |
| <b>Viscosity (All Product Grades)</b> | Not available  |

## 10. Stability and Reactivity

|                                  |                                                                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazardous Polymerizations</b> | DO NOT OCCUR                                                                                                                                                          |
| <b>Products of Combustion</b>    | Normal combustion forms carbondioxide and water vapour and may produce oxides of sulfur, nitrogen and phosphorous ; incomplete combustion can product carbon monoxide |
| <b>Conditions to Avoid</b>       | Heat, strong oxidizers                                                                                                                                                |

## 11. Toxicological Information

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b> | <p>High Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part. Take this information with you if you seek medical treatment.</p> <p>The material is of varying composition and may contain significant amounts of polynuclear aromatic hydrocarbons (PNAs) which have been shown to cause skin cancer after prolonged or frequent contact with the skin of test animals. When a similar material was repeatedly applied to the skin of mice, there was a moderate increase in skin cancer. Brief of intermittent skin contact with this product is not expected to have serious effects if it is washed thoroughly from the skin. While normal use should not result in any adverse effects, we strongly recommend that the precautions outlined in this MSDS be followed to reduce skin contact and keep inhalation of mists of vapours to a minimum.</p> <p>This product contains petroleum vacuum residuum which is similar to</p> |
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petroleum asphalt. No association has been established between industrial exposure to petroleum asphalt and cancer in humans. The International Agency for Research on Cancer (IARC) has recently reviewed the carcinogenic effects of asphalts. They concluded that there was insufficient evidence that undiluted, air-refined asphalt was carcinogenic to animals, while there was limited evidence that steam-refined asphalts were carcinogenic to animals. Additionally there was insufficient evidence to conclude that asphalts were carcinogenic to human beings. Studies in which mice were exposed to a variety of whole asphalts did not result in any increased incidence of certain types of cancer. Brief or intermittent skin contact with this asphalt product is not expected to produce any serious effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of mists, fumes or vapours should be reduced to a minimum. We strongly recommend that the precautions outlined in this MSDS be followed when handling this material.

## 12. Ecological Information

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|------------------------------|-----------------------------------------------------------|
| <b>Environmental Effects</b> | No specific toxicology data on this product is available. |
|------------------------------|-----------------------------------------------------------|

## 13. Disposal Considerations

|                       |                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste Disposal</b> | Place contaminated materials in disposable containers and dispose off in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material |
| <b>Remarks</b>        | None required                                                                                                                                                                                                      |

## 14. Transport Information

|                                          |                 |
|------------------------------------------|-----------------|
| <b>Transportation of Dangerous Goods</b> | .               |
| <b>UN Number</b>                         | Not Applicable  |
| <b>Dangerous Goods Class</b>             | Not Applicable  |
| <b>Proper Shipping Name</b>              | Not applicable  |
| <b>Hazchem Code</b>                      | Not applicable  |
| <b>Additional Information</b>            | None Determined |

## 15. Regulatory Information

|                               |                 |
|-------------------------------|-----------------|
| <b>Respirator Information</b> | None determined |
|-------------------------------|-----------------|

## 16. Other Information — No specific notes on this product