

SAFETY DATA SHEET



Version 4

Revision Date 12-01-17

NON-HAZARDOUS SUBSTANCE - NON-DANGEROUS GOODS

SECTION 1: Identification of the substance / mixture and of the company / undertaking

Product identifier

Product name LSA INDUSTRIAL GEAR OIL 320
Product code 1700-53-0000
SDS no. 1700-53-0000 4-GB
Product type Liquid.

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

Use of the substance/mixture Industrial Gear Oil
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Details of the supplier of the safety data sheet

Supplier Bernadini Pty Ltd
Trading as LUBRICANT SPECIALISTS AUSTRALIA (LSA)
Unit 2, 1110 Abernethy Road
High Wycombe WA 6057
Telephone +61 8 6254 7777
Fax +61 8 9454 9158
E-mail address perth@lsaoils.com.au

Emergency telephone number +61 8 6254 7777

SECTION 2: Hazards identification

Classification of the substance or mixture

GHS classification Mixture

CLASSIFIED AS NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS. ACCORDING TO AUSTRALIAN WHS REGULATIONS AND ADG CODE

Chronic Toxicity Category 4
Acute Toxicity Category 3
Eye irritation Category 2B

Other hazards

Other hazards which do not result in classification Defatting to the skin.
Used oil may contain hazardous components which have the potential to cause skin cancer.
See Toxicological Information, section 11 of this Safety Data Sheet.

Label elements

Hazard pictograms No pictogram required
Signal word Warning
Hazard statements H413: May cause long lasting effects to aquatic life.
H402: Harmful to aquatic life.
H320: Causes eye irritation

Precautionary statements

P273: Avoid release to the environment.

Response

P264: Wash off with soap and plenty water or use recognised skin cleanser.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Storage

P337+313: If eye irritation persists get medical advice/attention.

Disposal

Not applicable.

P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Safety data sheet available on request.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

Not applicable.

Tactile warning of danger

Not applicable.

SECTION 3: Composition/information on ingredients

Substance / mixture Chemically modified base oil. Proprietary performance additives
Mixture

| Product / ingredient name | % | CAS Number | Hazard Classification | Risk Phrase/Hazard Statements |
|--|-----------|--------------|--|--|
| Distillates (petroleum), hydrotreated light paraffinic | 60~100 | 64742-54-7 | Not classified | Not applicable |
| Mineral oil | 75 - 100 | Mixture* | Not classified | Not applicable |
| Long chain alkaryl amine | 0.1 - 0.5 | Trade Secret | Aquatic chronic Cat. 4 | P501 / H413 |
| Zinc alkyl dithiophosphate | 0.5 - 1.0 | 84605-29-8 | Eye damage Cat. 1 Chronic Toxicity Cat. 2 | P273, P280, P310 P305+P351+P338, P501 / H303, H315, H318, H411, H401 |

*The mineral oil contained in this material may be described by one or more of the following CAS Nos.: 64742-65-0, 64742-55-8, and 64742-56-9.

There are no 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

| | |
|----------------------------|--|
| Eye contact | In case of contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove any contact lenses. Seek medical advice. |
| Skin contact | Wash off with soap and plenty water or use recognised skin cleanser. Take off contaminated clothing and shoes immediately. Get medical attention if irritation develops. |
| Inhalation | If inhaled, remove to fresh air. Get medical attention if symptoms appear. |
| Ingestion | Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur or contact a Poison Information Centre on 13 11 26 (Australia Wide). |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. |

Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed notes to physician

Treatment should in general be symptomatic and directed to relieving any effects.

SECTION 5: Fire fighting measures

Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray. |
| Unsuitable extinguishing media | Do not use water jet. |

Special hazards arising from the substance or mixture

| | |
|---------------------------------------|--|
| Hazards from the substance or mixture | In a fire or if heated, a pressure increase will occur and the container may burst. |
| Hazardous combustion products | Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) |

Advice for firefighters

| | |
|--|---|
| Special precautions for fire-fighters | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personal

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Floors may be slippery; use care to avoid falling. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up**Small Spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

Reference to other sections

See Section 1 for emergency contact information.
 See Section 5 for firefighting measures.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 12 for environmental precautions.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

Precautions for safe handling**Protective measures**

Put on appropriate personal protective equipment.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

Not suitable

Prolonged exposure to elevated temperature.

Specific end use(s)**Recommendations**

See section 1.2 and Exposure scenarios in annex, if applicable.

SECTION 8: Exposure controls / personal protection

Control parameters**Occupational exposure limits****Product / ingredient name**

| Ingredient name | Exposure limits |
|---|---|
| Distillates (petroleum), hydrotreated heavy paraffinic | ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction |
| Base oil - unspecified | ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction |

| | |
|--|--|
| Recommended monitoring procedures | If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |
| Recommended monitoring procedures | If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |
| Derived No Effect Level | No DNELs / DMELs available. |
| Predicted No Effect Concentration | No PNECs available |
| Exposure controls | |
| Appropriate engineering controls | <p>Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.</p> <p>All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.</p> <p>Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.</p> |
| Environmental exposure controls | emissions from ventilation or work proces equipment should be checked to ensure. they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |
| Individual protection measures | |
| 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. |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier /manufacturer and with a full assessment of the working conditions. |
| Respiratory protection | <p>Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure.</p> <p>In case of insufficient ventilation, wear suitable respiratory equipment.</p> <p>The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.</p> |
| Eye / face protection | Safety glasses with side shields. |
| Skin protection | |

Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Hand protection

General Information:

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Recommended: Nitrile gloves.

Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type. Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained. If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.

It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove Thickness:

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Skin and body

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

| | |
|---|----------------|
| Physical state | Liquid. |
| Colour (ASTM D1500) | <3.0 |
| Odour | Not available. |
| Odour threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Pour point (ASTM D97), (°C) | -9 |
| Flash point (ASTM D92), (°C) | 248 |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |

Upper/lower flammability or explosive limits Not available.

| | |
|--|---------------------|
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | Not available. |
| Density (ASTM D4052) @15°C, (g/cm3) | 0.8981 |
| Solubility(ies) | insoluble in water. |
| Partition coefficient: n-octanol/water | >3 |
| Auto-ignition temperature | 368 |
| Decomposition temperature | Not available. |
| Kinematic Viscosity (ASTM D445) @40°C, (cSt) | 328.0 |
| Kinematic Viscosity (ASTM D445) @100°C, (cSt) | 25.53 |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

Other information No additional information.

SECTION 10: Stability and reactivity

Reactivity No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

Conditions to avoid Avoid all possible sources of ignition (spark or flame).

Incompatible materials Reactive or incompatible with the following materials: oxidising materials.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity estimates

| Route | ATE value |
|----------------|-----------|
| Not available. | 200,000 |

Information on the likely routes of exposure Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

| | |
|--------------|--|
| Inhalation | Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure. |
| Ingestion | No known significant effects or critical hazards. |
| Skin contact | Defatting to the skin. May cause skin dryness and irritation. |
| Eye contact | No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|--------------|--|
| Inhalation | No specific data. |
| Ingestion | No specific data. |
| Skin contact | Adverse symptoms may include the following: irritation dryness cracking |

Eye contact No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

| | |
|------------------------------------|--|
| Inhalation | Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. |
| Ingestion Skin contact Eye contact | Ingestion of large quantities may cause nausea and diarrhoea. |
| Skin contact | Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. |
| Eye contact | Potential risk of transient stinging or redness if accidental eye contact occurs. |

Potential chronic health effects

| | |
|---------|--|
| General | USED LUBRICATING OILS Used lubricating oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used lubricating oil must therefore be avoided and a high standard of personal hygiene maintained. |
|---------|--|

| | |
|-----------------------|---|
| Carcinogenicity | No known significant effects or critical hazards. |
| Mutagenicity | No known significant effects or critical hazards. |
| Developmental effects | No known significant effects or critical hazards. |
| Fertility effects | No known significant effects or critical hazards. |

SECTION 12: Ecological information

Toxicity

| | |
|-----------------------|---|
| Environmental hazards | Not classified as dangerous Based on data available for this or related materials. |
| Environmental hazards | No known significant effects or critical hazards. |

Persistence and degradability Expected to be biodegradable.

Bioaccumulative potential This product is not expected to bioaccumulate through food chains in the environment.

| | |
|---|-------|
| 96hr LC50 (for fish), mg/l | >1000 |
| 48hr EC50 (for crustacean), mg/l | >1000 |
| 72 or 96hr ErC50 (for algae or other aquatic) | >1000 |

Mobility in soil

| | |
|--|--|
| Soil / water partition coefficient (KOC) | Not available. |
| Mobility | Spillages may penetrate the soil causing ground water contamination. |

Results of PBT and vPvB assessment

| | |
|------|-----------------|
| PBT | Not applicable. |
| vPvB | Not applicable. |

Other adverse effects

| | |
|------------------------------|--|
| Other ecological information | Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired. |
|------------------------------|--|

SECTION 13: Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and run off and contact with soil, waterways, drains and sewers.

13.1 Waste treatment methods

Product

Methods of disposal

Where possible, arrange for product to be recycled. Dispose of via an authorised person / licensed waste disposal contractor in accordance with local regulations.

Hazardous waste

Yes.

European waste catalogue (EWC)

| Waste code | Waste designation |
|------------|---|
| 13 02 05* | mineral-based non-chlorinated engine, gear and lubricating oils |

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end

USER Packaging

Methods of disposal

Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

Special precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Land (as per ADR classification)

Not regulated

This material is not classified as dangerous under ADR regulations.

IMDG

This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)

This material is either not classified as dangerous under IATA regulations or needs to follow country specific requirements.

| | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG / IMO) | AIR TRANSPORT (IATA / ICAO) |
|------------------------------|----------------------|----------------------------|-----------------------------|
| UN number | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | Not regulated. | Not regulated. | Not regulated. |
| Transport hazard class(es) | Not regulated. | Not regulated. | Not regulated. |
| Packing group | Not applicable | Not applicable | Not applicable |
| Environmental hazards | No. | No. | No. |
| Special precautions for user | - | - | - |

Special precautions for user

Not available.

SECTION 15: Regulatory information

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

Substances of very high concern

None of the components are listed.

Safety, health and environmental regulations specific for the product

Poison schedule

No known specific national and/or regional regulations applicable to this product (including its ingredients).

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications

Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

| | |
|----------------------|---|
| Hazard codes | Non allocated |
| Risk phrases | None allocated |
| Safety phrases | Non allocated |
| Inventory listing(s) | All components are listed on ACIS, or are exempt. |

Regulation according to other foreign laws

| | |
|-----------------------------------|---|
| REACH Status | For the REACH status of this product please consult your company contact, as identified in Section 1. |
| United States inventory (TSCA 8b) | All components are listed or exempted. |
| Australia inventory (AICS) | All components are listed or exempted. |
| Canada inventory | All components are listed or exempted. |
| China inventory (IECSC) | At least one component is not listed. |
| Japan inventory (ENCS) | All components are listed or exempted. |
| Korea inventory (KECI) | All components are listed or exempted. |
| Philippines inventory (PICCS) | All components are listed or exempted. |
| Chemical Safety Assessment | This product contains substances for which Chemical Safety Assessments are still required. |

SECTION 16: Other information

Abbreviations and acronyms

| |
|---|
| ACGIH = American Conference of Government Industrial Hygienists |
| ADG = Australian Dangerous Goods Code |
| ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway |
| ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road |
| AICS = Australian Inventory of Chemical Substances |
| ATE = Acute Toxicity Estimate |
| BCF = Bioconcentration Factor |
| CAS = Chemical Abstracts Service |
| CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] CSA = Chemical Safety Assessment |
| CSR = Chemical Safety Report |
| DMEL = Derived Minimal Effect Level |
| DNEL = Derived No Effect Level |
| DPD = Dangerous Preparations Directive [1999/45/EC] |
| DSD = Dangerous Substances Directive [67/548/EEC] |
| EINECS = European Inventory of Existing Commercial chemical Substances ES = Exposure Scenario |
| EMS = Emergency Schedules (Emergency Procedure for Ships Carrying Dangerous Goods) |
| ENCS = Existing and New Chemical Substances |
| EUH statement = CLP-specific Hazard statement |
| EWC = European Waste Catalogue |
| GHS = Globally Harmonized System of Classification and Labelling of Chemicals |
| IARC = International Agency for Research on Cancer |
| IATA = International Air Transport Association |
| IBC = Intermediate Bulk Container |
| IMDG = International Maritime Dangerous Goods |
| LC50 = Lethal Concentration, 50% / Medium Lethal Concentration |
| LD50 = Lethal Dose, 50% / Medium Lethal Dose |
| Log Pow = logarithm of the octanol/water partition coefficient |
| MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |
| NOHSC = National Occupational Health & Safety Commission |
| OECD = Organisation for Economic Co-operation and Development |
| OEL = Occupational Exposure Limits |
| PBT = Persistent, Bioaccumulative and Toxic |
| PNEC = Predicted No Effect Concentration |
| RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number |
| SAA/SNZ HB76 = Dangerous Goods Initial Emergency Response Guide |
| SADT = Self-Accelerating Decomposition Temperature |
| STEL = Short-Term Exposure Limit |
| STOT-RE = Specific Target Organ Toxicity - Repeated Exposure |

STOT-SE = Specific Target Organ Toxicity - Single Exposure
SUSMP = Standard for the Uniform Scheduling of Medicines and Poisons
SVHC = Substances of Very High Concern
SWA = Safe Work Australia
TLV = Threshold Limit Value
TSCA = Toxic Substance Control Act
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative
WHS = Work Health and Safety Regulations

History

| | | |
|---|--|------|
| Date of issue / Date of revision | 12-Jan-2017 | |
| Date of previous issue | 30-Apr-2014 | MSDS |
| Prepared by | Bernadini Pty Ltd trading as Lubricant Specialists Australia (LSA) | |

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from LSA.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. LSA shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact LSA to ensure that this document is the most current available. Alteration of this document is strictly prohibited.