

Alphasyn EP 460

Section 1. Identification

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| Product name | Alphasyn EP 460 |
| Product code | 462251-AU22 |
| SDS no. | 462251 |
| Use of the substance/mixture | <input checked="" type="checkbox"/> Gear lubricant For specific application advice see appropriate Technical Data Sheet or consult our company representative. |
| Product type | Liquid. |
| Supplier | Castrol New Zealand Limited 73 Remuera Road Newmarket Auckland, New Zealand www.castrol.com/nz Technical Helpline 0800 10 40 60 |
| Emergency telephone number | 0800 243643 (0800 CHEMHELP) (NZ use only) |
| New Zealand National Poisons Centre | 0800 764 766 National Poison Centre |

Section 2. Hazards identification

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| HSNO Classification | 9.1 - AQUATIC ECOTOXICITY - Category C |
| This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020. | |
| This material is not classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land. | |
| Routes of entry | Dermal contact. Eye contact. Inhalation. |
| GHS label elements | |
| Signal word | No signal word. |
| Hazard statements | Harmful to aquatic life with long lasting effects. |
| Precautionary statements | |
| Prevention | Avoid release to the environment. |
| Response | Not applicable. |
| Storage | Not applicable. |
| Disposal | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Other hazards which do not result in classification | Defatting to the skin. |

Section 3. Composition/information on ingredients

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| Substance/mixture | Mixture |
| Synthetic base stock. Proprietary performance additives. | |

| Ingredient name | % (w/w) | CAS number |
|---------------------------|---------|------------|
| Amines, C12-14-tert-alkyl | ≤0.3 | 68955-53-3 |
| (Z)-octadec-9-enylamine | ≤0.1 | 112-90-3 |

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

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| Product name Alphasyn EP 460 | Product code 462251-AU22 | Page: 1/7 |
| Version 2 | Date of issue 16 August 2023 | Format New Zealand |
| | | Language ENGLISH (ENGLISH) |

Section 3. Composition/information on ingredients

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

Section 4. First aid measures

Description of necessary first aid measures

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|---------------------|---|
| Inhalation | If inhaled, remove to fresh air. Get medical attention if symptoms occur. |
| Ingestion | Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe. |
| Skin contact | Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur. |
| Eye contact | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention. |

Indication of immediate medical attention and special treatment needed, if necessary

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| Notes to physician | Treatment should in general be symptomatic and directed to relieving any effects. |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

Section 5. Firefighting measures

Extinguishing media

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| Suitable | Use foam or all-purpose dry chemical to extinguish. |
| Not suitable | Do not use water jet. |
| Specific hazards arising from the chemical | Swarf fires - Neat metal working oils may fume, thermally decompose or ignite if they come into contact with red hot swarf. To minimise the generation of red hot swarf ensure that a sufficient flow of oil is correctly directed to the cutting edge of the tool to flood it throughout cutting operations. As an additional precaution swarf should be regularly cleared from the immediate area to prevent the risk of fire. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) |
| Hazchem code | Not available. |
| Special precautions for fire-fighters | No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. |
| 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. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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|------------------------------------|---|
| For non-emergency personnel | 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 spill material. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Contact emergency personnel. |
| For emergency responders | Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel". |

Section 6. Accidental release measures

Environmental precautions Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material 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. Approach the release from upwind. 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 (see Section 13). Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Wash thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid, as can bacteria, and as a result may induce allergic and other skin reactions, especially if personal hygiene is inadequate.

Concentrations of mist, fumes and vapours in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agitation or heating must be avoided. 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 original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Not suitable Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

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.

Section 8. Exposure controls/personal protection

Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. 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.

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.

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.

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye protection

Safety glasses with side shields.

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.

Skin protection

Use of protective clothing is good industrial practice. 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. 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.

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 should conform to AS/NZS 1715 and AS/NZS 1716.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state

Liquid.

Colour

Amber.

Odour

Not available.

pH

Not applicable.

Melting point/freezing point

Not available.

Section 9. Physical and chemical properties

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| Boiling point, initial boiling point, and boiling range | Not available. |
| Drop Point | Not available. |
| Flash point | Closed cup: >180°C (>356°F) [Pensky-Martens] Open cup: >200°C (>392°F) [Cleveland] |
| Auto-ignition temperature | Not available. |
| Vapour pressure | Not available. |

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|-----------------|-------------------------|-----|--------|-------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| | | | | | | |

| | |
|--------------------------------|---|
| Relative vapour density | Not available. |
| Density | <1000 kg/m ³ (<1 g/cm ³) at 15°C |
| Solubility(ies) | Not available. |

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|------------------|---|
| Viscosity | Kinematic: 455 mm ² /s (455 cSt) at 40°C Kinematic: 46.5 mm ² /s (46.5 cSt) at 100°C |
|------------------|---|

Particle characteristics Median particle size

Section 10. Stability and reactivity

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| 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 likely routes of exposure

| | |
|---------------------|---|
| Inhalation | No known significant effects or critical hazards. |
| 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. |

Potential chronic health effects

| | |
|---------------------|--|
| General | No known significant effects or critical hazards. |
| Inhalation | Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. |
| Ingestion | Ingestion of large quantities may cause nausea and diarrhoea. |
| Skin contact | Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. |

Section 11. Toxicological information

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|------------------------------|---|
| Eye contact | Potential risk of transient stinging or redness if accidental eye contact occurs. |
| Carcinogenicity | No known significant effects or critical hazards. |
| Mutagenicity | No known significant effects or critical hazards. |
| Teratogenicity | 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. |
| Aspiration hazard | |

Name

(Z)-octadec-9-enylamine

Section 12. Ecological information

Ecotoxicity This material is harmful to aquatic life with long lasting effects.

Persistence and degradability

Not expected to be rapidly degradable.

Bioaccumulative potential

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

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---------------------------|--------------------|-----|-----------|
| Amines, C12-14-tert-alkyl | 2.9 | - | low |

Mobility in soil

Mobility Spillages may penetrate the soil causing ground water contamination.

Soil/water partition coefficient (K_{oc}) Not available.

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. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|--------------------------|----------------|----------------------|---------|-----|-------|------------------------|
| New Zealand Class | Not regulated. | - | - | - | | - |
| ADG Class | Not regulated. | - | - | - | | - |
| IATA Class | Not regulated. | - | - | - | | - |
| IMDG Class | Not regulated. | - | - | - | | - |

PG* : Packing group

Section 15. Regulatory information

New Zealand Regulatory Information

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|-----------------------------|--|
| HSNO Approval Number | HSR002605 |
| HSNO Group Standard | Lubricant (Low Hazard) Group Standard 2020 |
| HSNO Classification | 9.1 - AQUATIC ECOTOXICITY - Category C |

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 active or exempted. |
| Australia inventory (AIC) | All components are listed or exempted. |
| Canada inventory status | All components are listed or exempted. |
| China inventory (IECSC) | All components are listed or exempted. |
| Japan inventory (CSCL) | All components are listed or exempted. |
| Korea inventory (KECI) | All components are listed or exempted. |
| Philippines inventory (PICCS) | At least one component is not listed. |
| Taiwan Chemical Substances Inventory (TCSI) | All components are listed or exempted. |

Section 16. Other information

History

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|---------------------------------------|--|
| Date of issue/Date of revision | 16 August 2023 |
| Date of previous issue | 30 October 2019. |
| Version | 2 |
| Prepared by | Not available. |
| Key to abbreviations | Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1 |

Notice to reader

 **Indicates information that has changed from previously issued version.**

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