

Alpha SP 680

## Section 1. Identification

<b>Product name</b>	Alpha SP 680
<b>Product code</b>	456560-AU24
<b>SDS no.</b>	456560
<b>Use of the substance/mixture</b>	Gear lubricant For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Product type</b>	Liquid.
<b>Supplier</b>	Castrol New Zealand Limited 73 Remuera Road Newmarket Auckland, New Zealand  www.castrol.com/nz Technical Helpline 0800 10 40 60
<b>Emergency telephone number</b>	0800 243643 (0800 CHEMHELP) (NZ use only)
<b>New Zealand National Poisons Centre</b>	0800 764 766 National Poison Centre

## Section 2. Hazards identification

<b>HSNO Classification</b>	Not classified.
This material is not 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.	
<b>Routes of entry</b>	Dermal contact. Eye contact. Inhalation.
<b>GHS label elements</b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	No known significant effects or critical hazards.
<b>Precautionary statements</b>	
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	Mixture
Synthetic lubricant. Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.	

Ingredient name	% (w/w)	CAS number
Residual oils (petroleum), solvent-dewaxed	≥30 - ≤60	64742-62-7
Residual oils (petroleum), hydrotreated	≥30 - ≤60	64742-57-0

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

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

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		<b>Language</b> ENGLISH ( ENGLISH )

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Skin contact</b>	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.
<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

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

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

## Section 5. Firefighting measures

### Extinguishing media

**Suitable** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**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.

### Hazardous combustion products

☑ Combustion products may include the following:  
metal oxide/oxides  
carbon oxides (CO, CO<sub>2</sub>) (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 positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** 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".

**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 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).

### 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. 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.

## Section 7. Handling and storage

### Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). 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. 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.

### 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

Ingredient name	Exposure limits
Residual oils (petroleum), solvent-dewaxed	<b>NZ HSWA 2015 - GRWM 2016 (New Zealand). [Oil mineral]</b> WES-TWA: 5 mg/m <sup>3</sup> 8 hours. Issued/ Revised: 6/2016 Form: Mist WES-STEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/ Revised: 9/2010 Form: Mist
Residual oils (petroleum), hydrotreated	<b>NZ HSWA 2015 - GRWM 2016 (New Zealand). [Oil mineral]</b> WES-TWA: 5 mg/m <sup>3</sup> 8 hours. Issued/ Revised: 6/2016 Form: Mist WES-STEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/ Revised: 9/2010 Form: Mist

#### Biological exposure indices

No exposure indices known.

#### Recommended monitoring procedures

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.

#### Appropriate engineering controls

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.

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

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.

## Section 8. Exposure controls/personal protection

### 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

Appropriate footwear and any additional skin protection measures 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. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m<sup>3</sup>), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m<sup>3</sup>). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary. 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.

## 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. [Dark]
Odour	Mild
pH	Not applicable.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Drop Point	Not available.
Flash point	☑ Closed cup: 167°C (332.6°F) [Pensky-Martens ASTM D 93] Open cup: >200°C (>392°F) [Cleveland ASTM D 92]
Auto-ignition temperature	Not available.
Vapour pressure	

## Section 9. Physical and chemical properties

Ingredient name	Vapour Pressure at 20 °C			Vapour pressure at 50 °C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> Residual oils (petroleum), solvent-dewaxed	<0.08	<0.011	ASTM D 5191			
Residual oils (petroleum), hydrotreated	<0.08	<0.011	ASTM D 5191			

**Relative vapour density**

Not available.

**Density**

<1000 kg/m<sup>3</sup> (<1 g/cm<sup>3</sup>) at 15 °C

**Solubility(ies)**

Media	Result
<input checked="" type="checkbox"/> water	Not soluble

**Viscosity**

Kinematic: 680 mm<sup>2</sup>/s (680 cSt) at 40 °C  
Kinematic: 37.3 mm<sup>2</sup>/s (37.3 cSt) at 100 °C (ASTM D 445)

**Particle characteristics**

**Median particle size**

Not applicable.

## Section 10. Stability and reactivity

**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**

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.

**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.

**Eye contact**

No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Teratogenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.

## Section 12. Ecological information

**Ecotoxicity** 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.

### Mobility in soil

**Mobility** Spillages may penetrate the soil causing ground water contamination.

**Soil/water partition coefficient (K<sub>oc</sub>)** 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. 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 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
<b>New Zealand Class</b>	Not regulated.	-	-	-		-
<b>ADG Class</b>	Not regulated.	-	-	-		-
<b>IATA Class</b>	Not regulated.	-	-	-		-
<b>IMDG Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

## Section 15. Regulatory information

### New Zealand Regulatory Information

<b>HSNO Approval Number</b>	None assigned.
<b>HSNO Group Standard</b>	None assigned.
<b>HSNO Classification</b>	Not classified.

### 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.

**Product name** Alpha SP 680

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## Section 15. Regulatory information

<b>United States inventory (TSCA 8b)</b>	Not determined.
<b>Australia inventory (AIC)</b>	All components are listed or exempted.
<b>Canada inventory status</b>	All components are listed or exempted.
<b>China inventory (IECSC)</b>	All components are listed or exempted.
<b>Japan inventory (CSCL)</b>	All components are listed or exempted.
<b>Korea inventory (KECI)</b>	All components are listed or exempted.
<b>Philippines inventory (PICCS)</b>	All components are listed or exempted.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	All components are listed or exempted.

## Section 16. Other information

### History

<b>Date of issue/Date of revision</b>	16 August 2023
<b>Date of previous issue</b>	21 February 2022.
<b>Version</b>	5
<b>Prepared by</b>	Not available.
<b>Key to abbreviations</b>	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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