


Section 1. Identification

GHS product identifier	Hyspin AWS 10
Product code	456610-FR01
SDS no.	456610
Relevant identified uses of the substance or mixture and uses advised against	
Use of the substance/ mixture	Hydraulic fluid For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Manufacturer Supplier	Castrol India Ltd Technopolis Knowledge Park Office PO Box 19411 Mahakali Caves Rd Chakala, Andheri (E) Mumbai 400093
EMERGENCY TELEPHONE NUMBER	Telephone: +91 (022) 66984111/66984112 Toll free: 000800 100 7479 (for use in India only - 24/7) Carechem Singapore: +65 3158 1198 (24/7)

Section 2. Hazards identification

GHS Classification	ASPIRATION HAZARD - Category 1
GHS label elements	
Hazard pictograms	
Signal word	Danger
Hazard statements	H304 - May be fatal if swallowed and enters airways.
Precautionary statements	
General	Not applicable.
Prevention	Not applicable.
Response	P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
Storage	P405 - Store locked up.
Disposal	P501 - 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. Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

Section 3. Composition/information on ingredients

Substance/mixture	Mixture
Highly refined mineral oil (IP 346 DMSO extract < 3%). Proprietary performance additives.	

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light naphthenic	≥75 - ≤90	64742-53-6
Distillates (petroleum), hydrotreated heavy naphthenic	≥10 - ≤25	64742-52-5
2,6-di-tert-butylphenol	<0.25	128-39-2

Section 3. Composition/information on ingredients

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.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	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.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
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.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical attention immediately.
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.

Most important symptoms/effects, acute and delayed

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

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

Specific treatments	No specific treatment.
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

Note: High Pressure Applications

Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

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	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide)
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

Contact 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

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".

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. 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. 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

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.

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

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. Store locked up. 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

Ensure product is stored in covered area away from direct sunlight, heat, rain and water exposure.



Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light naphthenic	ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction
Distillates (petroleum), hydrotreated heavy naphthenic	ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Biological exposure indices

Ingredient name	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

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.

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.

Skin protection

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

Section 8. Exposure controls/personal protection

Other skin protection

and/or impervious chemical suits and boots will be required.

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. 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	Yellow. [Light]
Odour	<input checked="" type="checkbox"/> Unfragranced
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Drop Point	Not available.
Pour point	-55 °C
Flash point	<input checked="" type="checkbox"/> Closed cup: >140°C (>284°F) [Pensky-Martens ASTM D 93]
Evaporation rate	Not available.
Flammability	Not applicable. Based on - Physical state
Lower and upper explosion limit/flammability limit	Not available.
Vapour pressure	<input checked="" type="checkbox"/> 0.01 kPa
Relative vapour density	Not available.
Relative density	Not available.
Density	<1000 kg/m ³ (<1 g/cm ³) at 15°C
Solubility(ies)	

Media	Result
water	Not soluble

Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	<input checked="" type="checkbox"/> Kinematic: 10 mm ² /s (10 cSt) at 40°C Kinematic: 2.55 mm ² /s (2.55 cSt) at 100°C (ASTM D 445)

Particle characteristics

Median particle size	Not applicable.
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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	<input checked="" type="checkbox"/> 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

Product/ingredient name	Test	Species	Result	Exposure	Remarks
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	Based on studies with similar substances.
	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances.
	LD50 Oral	Rat	>5000 mg/kg	-	-
2,6-di-tert-butylphenol	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
	LD50 Oral	Rat	>5000 mg/kg	-	-

Irritation/Corrosion

Product/ingredient name	Species	Result	Score	Exposure	Observation	Remarks
Distillates (petroleum), hydrotreated light naphthenic	Rabbit	Eyes - Not irritant	-	-	-	-
	Rabbit	Skin - Not irritant	-	-	-	Based on studies with similar substances.
2,6-di-tert-butylphenol	Rabbit	Eyes - Non-irritating to the eyes.	-	-	-	-
	Rabbit	Skin - Irritant	-	-	-	-

Sensitiser

Product/ingredient name	Route of exposure	Species	Result	Remarks
Distillates (petroleum), hydrotreated light naphthenic	skin	Guinea pig	Not sensitising	-
2,6-di-tert-butylphenol	skin	Guinea pig	Not sensitising	-

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
Distillates (petroleum), hydrotreated light naphthenic	OECD 473	Experiment: In vitro	Negative	-
	-	Subject: Mammalian-Animal		
	-	Experiment: In vitro	Negative	Based on studies with similar substances.
	-	Subject: Mammalian-Animal		
	OECD 471	Experiment: In vitro Subject: Bacteria	Equivocal	-
2,6-di-tert-butylphenol	OECD 474	Experiment: In vivo	Negative	Based on studies with similar substances.
	-	Subject: Mammalian-Animal		
	OECD 471 Bacterial Reverse Mutation	Experiment: In vitro	Negative	-

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Test

Subject: Bacteria

OECD 473 In vitro Mammalian Chromosomal Aberration Test Experiment: In vitro Negative -

Subject: Mammal - species unspecified

Carcinogenicity

Product/ingredient name	Species	Route	Exposure	Test	Result	Remarks
Distillates (petroleum), hydrotreated light naphthenic	Mouse	Dermal	Negative - Dermal - Unspecified	-	-	Based on studies with similar substances.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Result	Exposure
Distillates (petroleum), hydrotreated light naphthenic	Negative	Negative	Negative	Rat	Oral	-
2,6-di-tert-butylphenol	Positive	Negative	Equivocal	Rat	Oral	-

Teratogenicity

Product/ingredient name	Test	Species	Result	Exposure
Distillates (petroleum), hydrotreated light naphthenic	Negative - Dermal	Rat	-	-

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light naphthenic	ASPIRATION HAZARD - Category 1

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

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Ingestion	Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation dryness cracking
Ingestion	Adverse symptoms may include the following: nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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

Potential chronic health effects

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Section 12. Ecological information

Environmental effects No known significant effects or critical hazards.

Toxicity

Product/ingredient name	Species	Test/Result	Exposure	Effects	Remarks
Distillates (petroleum), hydrotreated light naphthenic	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	-
	Algae	Acute ErL50 >100 mg/l	72 hours	-	Based on studies with similar substances.
	Fish	Acute LL50 >100 mg/l	96 hours	-	-
	Algae	Chronic NOELR >100 mg/l	72 hours	-	Based on studies with similar substances.
2,6-di-tert-butylphenol	Daphnia	Chronic NOEL 10 mg/l	21 days	-	-
	Algae	Acute EL50 1.2 mg/l	96 hours	-	-
	Daphnia	Acute EL50 0.45 mg/l	48 hours	-	-
	Fish	Acute LC50 1.4 mg/l	96 hours	-	-
Algae	Chronic NOEC 0.64 mg/l	96 hours	-	-	
	Daphnia	Chronic NOEC 0.035 mg/l	21 days	-	-

Persistence and degradability

Expected to be biodegradable.

Product/ingredient name	Test	Result	Remarks
Distillates (petroleum), hydrotreated light naphthenic	OECD 301B	2 to 4 % - Not readily - 28 days	-
2,6-di-tert-butylphenol	OECD 301B	24 % - Not readily - 28 days	-

Bioaccumulative potential

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

Product/ingredient name	LogP _{ow}	BCF	Potential
2,6-di-tert-butylphenol	4.5	-	high

Mobility

Spillages may penetrate the soil causing ground water contamination.

Other adverse effects

No known significant effects or critical hazards.

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. 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

	IMDG	IATA
UN number	Not regulated.	Not regulated.
UN proper shipping name	-	-
Transport hazard class(es)	-	-
Packing group	-	-
Environmental hazards	No.	No.
Additional information	-	-

Special precautions for user Not available.

Transport in bulk according to IMO instruments Not available.

Section 15. Regulatory information

Regulation according to other foreign laws

REACH Status	The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
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.
United States inventory (TSCA 8b)	All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision	14/11/2023.
Date of previous issue	21/03/2023.
Prepared by	Product Stewardship

Section 16. Other information

Key to abbreviations

ACGIH = American Conference of Industrial Hygienists
CAS Number = Chemical Abstracts Service Registry Number
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
OEL = Occupational Exposure Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
SDS = Safety Data Sheet
STEL = Short term exposure limit
TWA = Time weighted average
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.
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

 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 BP Group.

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