SAFETY DATA SHEET

Section 1. Identification

Product name	Castrol Axle Limited Slip 80W-90
SDS #	467620
Code	467620-US06
Relevant identified uses of	the substance or mixture and uses advised against
Product use	Gear oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
	1 (800) 447-8735
INFORMATION:	Outside the US: +1 703-527-3887 (CHEMTREC)
EMERGENCY SPILL INFORMATION:	1 (800) 424-9300 CHEMTREC (USA)

Section 2. Hazards identification

OSHA/HCS status	This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).		
Classification of the substance or mixture	Not classified.		
GHS label elements			
Signal word	No signal word.		
Hazard statements	No known significant effects or critical hazards.		
Precautionary statements			
General	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.		
Prevention	Not applicable.		
Response	Not applicable.		
Storage	Not applicable.		
Disposal	Not applicable.		
Hazards not otherwise classified	Defatting to the skin.		

Section 3. Composition/information on ingredients

Mixture

Substance/mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 1/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 3. Composition/information on ingredients

Ingredient name	CAS number	%
	Varies - See Key to abbreviations	≥90
Amines, C12-14-tert-alkyl	68955-53-3	≤0.3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 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 firs	t 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.
Skin contact	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
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. Get medical attention if symptoms occur.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

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

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.
Specific treatments	No specific treatment.

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.
Specific hazards arising from the chemical	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 dioxide carbon monoxide
Special protective actions 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 positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 2/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 6. Accidental release measures

Personal precautions, protectiv	<u>e equipment and emergency procedures</u>		
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 spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.		
For emergency responders	If specialized 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 cont	ainment 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	
Protective measures	Put on appropriate personal protective equipment (see Section 8).
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 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 unlabeled 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		
Sase oil - highly refined	ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction OSHA PEL (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 6/1993		
Amines, C12-14-tert-alkyl	None.		

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

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 3/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 8. Exposure controls/personal protection

Appropriate engineering	All activities involving chemicals should be assessed for their risks to health, to ensure
controls	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.
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/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.
Body 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.
Other 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. 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

			(US)		(ENGLISH)
Version 4 C	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 4/9
рН	Not available.				
Odor threshold	Not available.				
Odor	Not available.				
Color	Brown.				
Physical state	Liquid.				
Appearance					

Section 9. Physical and chemical properties

Melting point	Not available.
Boiling point	Not available.
Flash point	Øpen cup: 220°C (428°F) [Cleveland.]
Pour point	-33 °C
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	✓1000 kg/m³ (<1 g/cm³) at 15.6°C
Solubility	insoluble in water.
Partition coefficient: n- octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 141.4 mm²/s (141.4 cSt) at 40°C Kinematic: 14.34 mm²/s (14.34 cSt) at 100°C

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 polymerization will not occur.	
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).	
Incompatible materials	Reactive or incompatible with the following materials: oxidizing 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

Information on the likely routes of exposure	Routes of entry anticipated: Dermal, Inhalation.	
Potential acute health effects		
Eye contact	No known significant effects or critical hazards.	
Skin contact	No known significant effects or critical hazards.	
Inhalation	Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.	
Ingestion	No known significant effects or critical hazards.	

Symptoms related to the physical, chemical and toxicological characteristicsEye contactNo specific data.

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 5/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Skin contact	Adverse symptoms may include the following: irritation
	dryness
Inhalation	cracking May be harmful by inhalation if exposure to vapor, mists or fumes resulting from therma decomposition products occurs.
Ingestion	No specific data.
Delayed and immediate effect	s and also chronic effects from short and long term exposure
Short term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
Long term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
Potential chronic health effe	<u>cts</u>
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.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates Not available.

Section 12. Ecological information

Toxicity

No testing has been performed by the manufacturer.

Persistence and degradability

Expected to be biodegradable.

Bioaccumulative potential

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

<u>Mobility in soil</u>	
Soil/water partition coefficient (Koc)	Not available.
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.

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 6/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

Special precautions for user

Not available.

Not available.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations United States inventory (TSCA 8b) SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification SARA 313	Not applicable.
Form R - Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds.
Supplier notification	This product does not contain any hazardous ingredients at or above regulated thresholds.
State regulations	
Massachusetts	The following components are listed: MINERAL OIL, PETROLEUM PARAFFIN OILS, CATALYTIC DEWAXED HEAVY

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 7/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 15. Regulatory information

•	•		
New Jersey	The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED)		
Pennsylvania	None of the components are listed.		
California Prop. 65	WARNING: This product contains a chemical known to the State of California to cause cancer. Ethyl acrylate; naphthalene		
Other regulations			
Australia inventory (AICS)	All components are listed or exempted.		
Canada inventory	Al components are listed or exempted.		
China inventory (IECSC)	All components are listed or exempted.		
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.		
Taiwan Chemical Substances Inventory (TCSI)	Not determined.		
REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.		

Section 16. Other information

National Fire Protection Association (U.S.A.)



<u>History</u>				
Date of issue/Date of revision	03/13/2017.			
Date of previous issue	06/20/2016.			
Prepared by	Product Stewardship			
Key to abbreviations				
Indicates information that	nas changed from previously issued version.			

✓ Indicates information that has changed from previously issued version. <u>Notice to reader</u>

Product name	Castrol Axle Limited Slip 80W-90		Product code	467620-US06	Page: 8/9
Version 4	Date of issue 03/13/2017.	Format	US	Language	ENGLISH
			(US)		(ENGLISH)

Section 16. Other information

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.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group 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 the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.