

Castrol EDGE 0W-20 LL IV

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013

Section 1. Identification

| | |
|---|--|
| GHS product identifier | Castrol EDGE 0W-20 LL IV |
| Product code | 469489-CN04 |
| SDS no. | 469489 |
| <u>Relevant identified uses of the substance or mixture and uses advised against</u> | |
| Use of the substance/ mixture | Engine Oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative. |
| Supplier | Castrol (Shanghai) Management Co., Ltd. 3F, Building 5, No. 255 of Guiqiao Road, Shanghai P.R.C. 201206 Tel:+86 21 38605888 |
| EMERGENCY TELEPHONE NUMBER | Carechem: + 86 400 120 6011 (24/7) |

Section 2. Hazards identification

| | |
|--|---|
| Classification of the substance or mixture | Not classified. |
| <u>GHS label elements</u> | |
| Signal word | No signal word. |
| Hazard statements | No known significant effects or critical hazards. |
| <u>Precautionary statements</u> | |
| Prevention | Not applicable. |
| Response | Not applicable. |
| Storage | Not applicable. |
| Disposal | Not applicable. |
| Other hazards which do not result in classification | Defatting to the skin. USED ENGINE OILS Used engine oil may contain hazardous components which have the potential to cause skin cancer. See Toxicological Information, section 11 of this Safety Data Sheet. |

Section 3. Composition/information on ingredients

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

| Ingredient name | % | CAS number |
|---|-----------|-------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | ≥25 - ≤50 | 64742-54-7 |
| Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated | ≥25 - ≤50 | 68037-01-4 |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | ≤3 | 64742-65-0 |
| 1-Decene, homopolymer, hydrogenated | ≤3 | 68037-01-4 |
| Alcohols, C12-16, ethoxylated | ≤0.3 | 68551-12-2 |

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Section 3. Composition/information on ingredients

| | | |
|------------------|------|------------|
| Alkylated phenol | ≤0.1 | 74499-35-7 |
|------------------|------|------------|

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 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 unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | No specific treatment. |
| 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.

Section 5. Firefighting 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 thermal decomposition products | Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO ₂ etc.) |
| Special protective actions 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 | 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. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. |
|------------------------------------|--|

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Section 6. Accidental release measures

| | |
|--|---|
| 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). |
| <u>Methods and material for containment and cleaning up</u> | |
| 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 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

None.

Biological exposure indices

No exposure indices known.

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.

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Section 8. Exposure controls/personal protection

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.

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

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 | Green. [Dark] |
| Odour | Not available. |
| 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. |
| Flash point | Closed cup: 196°C (384.8°F) [Pensky-Martens] Open cup: >200°C (>392°F) [Cleveland] |
| Evaporation rate | Not available. |

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Section 9. Physical and chemical properties

Not applicable. Based on - Physical state

Lower and upper explosion limit/flammability limit

Not available.

Vapour pressure

| Ingredient name | Vapour Pressure at 20 °C | | | Vapour pressure at 50 °C | | |
|---|--------------------------|----------|----------------|--------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| Distillates (petroleum), hydrotreated heavy paraffinic | <0.08 | <0.011 | ASTM D 5191 | | | |
| Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated | <0.0041 | <0.00055 | ASTM E 1194-87 | | | |
| Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated | <0.0041 | <0.00055 | ASTM E 1194-87 | | | |
| Distillates (petroleum), hydrotreated heavy paraffinic | <0.08 | <0.011 | ASTM D 5191 | | | |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | <0.08 | <0.011 | ASTM D 5191 | | | |

Relative vapour density

Not available.

Relative density

Not available.

Density

<1000 kg/m³ (<1 g/cm³) at 15 °C

Solubility(ies)

| Media | Result |
|-------|-------------|
| water | Not soluble |

Partition coefficient: n-octanol/water

Not applicable.

Auto-ignition temperature

| Ingredient name | °C | °F | Method |
|---|------------|----------------|-------------|
| Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated | 343 to 369 | 649.4 to 696.2 | ASTM D 2159 |
| Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated | 343 to 369 | 649.4 to 696.2 | ASTM D 2159 |
| reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate | 365 | 689 | |
| 1-Decene, homopolymer, hydrogenated | 343 to 369 | 649.4 to 696.2 | ASTM D 2159 |

Decomposition temperature

Not available.

Viscosity

Kinematic: 37.5 to 47.5 mm²/s (37.5 to 47.5 cSt) at 40 °C
Kinematic: 7.8 to 8.8 mm²/s (7.8 to 8.8 cSt) at 100 °C

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 | 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

| | |
|---|--|
| 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 | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| Skin contact | Defatting to the skin. May cause skin dryness and irritation. |
| Ingestion | No known significant effects or critical hazards. |

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 | No specific data. |

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. |
| 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. |
| 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 effects | |

Section 11. Toxicological information

| | |
|------------------------------|---|
| General | USED ENGINE OILS Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine 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. |
| 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. |

Section 12. Ecological information

Toxicity

Environmental effects No known significant effects or critical hazards.

Persistence/degradability

Partially biodegradable.

Bioaccumulative potential

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

Mobility in soil

Soil/water partition coefficient (K_{oc}) 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.

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

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Section 14. Transport information

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

Special precautions for user Not available.

Matters needing attention for transportation Ensure that any additional local government transport conditions are met

Section 15. Regulatory information

List of Goods banned for Importing

None of the components are listed.

Drug Precursors Requiring an Import/Export License

None of the components are listed.

Catalogue and classification of drug precursor chemicals

| Category | Ingredient name | % | Status |
|------------|-----------------|------|--------|
| Category 3 | toluene | ≤0.1 | Listed |

List of Explosive Precursors

None of the components are listed.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Safety, health and environmental regulations specific for the product No known specific national and/or regional regulations applicable to this product (including its ingredients).

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 All components are listed or exempted.

China inventory (IECSC) All components are listed or exempted.

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Section 15. Regulatory information

| | |
|---|--|
| 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 printing | 3/8/2023 |
| Date of issue/Date of revision | 3/8/2023 |
| Date of previous issue | 3/6/2023 |
| Version | 1.04 |
| Prepared by | Product Stewardship |
| Key to abbreviations | ACGIH = American Conference of Industrial Hygienists CAS Number = Chemical Abstracts Service Registry Number GHS = Global Harmonised System IATA = International Air Transport Association, the organisation IMDG = International Maritime Organization Rules, rules governing shipment of goods by water. 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 |
| References | Not available. |

 **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.

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.

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