1. Chemical product and company identification

Product name: GUN DRILL OIL 2190
MSDS #: 459441
Historic MSDS #: 05182-BE
Code: 459441-US03
Product use: Lubricant
Manufacturer: Castrol Industrial North America, Inc.
150 W. Warrendale Road
Naperville, IL 60563
Supplier: Castrol Industrial North America, Inc.
150 W. Warrendale Road
Naperville, IL 60563
Product Information: 1-800-621-2661
EMERGENCY SPILL INFORMATION: 1 (800) 424-9300 CHEMTREC (USA)

2. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS #</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas oil - unspecified</td>
<td>64742-46-7</td>
<td>65 - 70</td>
</tr>
</tbody>
</table>

3. Hazards identification

Physical state: Liquid.
Color: Brown. (Dark.)
Emergency overview: CAUTION!
MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
Do not ingest. Do not get in eyes, on skin or clothing. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential health effects:

- Eyes: May cause eye irritation.
- Skin: May cause skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
- Inhalation: May cause respiratory tract irritation.
- Ingestion: Ingestion may cause gastrointestinal irritation and diarrhea.

Medical conditions aggravated by over-exposure: None identified.
4. First aid measures

**Eye contact**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

**Skin contact**
Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

**Inhalation**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if irritation develops.

**Ingestion**
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

5. Fire-fighting measures

**Flammability of the product**
May be combustible at high temperature.

**Flash point**
135 °C (Open cup) Cleveland.

**Products of combustion**
These products are carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), sulfur oxides (SO₂, SO₃ etc.), halogenated compounds, hydrogen chloride.

**Unusual fire/explosion hazards**
Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.

**Fire-fighting media and instructions**
In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.

**Protective clothing (fire)**
Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

**Personal precautions**
Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").

**Environmental precautions and clean-up methods**
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. See Section 13 for Waste Disposal Information.

**Personal protection in case of a large spill**
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

7. Handling and storage

**Handling**
Do not ingest. Do not get in eyes, on skin or on clothing. Avoid contact with skin and clothing. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable. Use only with adequate ventilation. Wash thoroughly after handling.

**Storage**
Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.
8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name | Occupational exposure limits
Gas oil - unspecified | **ACGIH (United States).**
| STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral
| TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral

**OSHA (United States).**
| TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral

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

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.

Personal protection

**Eyes**
Avoid contact with eyes. Safety glasses with side shields.

**Skin and body**
Avoid contact with skin and clothing. Wear suitable protective clothing.

**Respiratory**
Use only with adequate ventilation. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.

**Hands**
Wear suitable gloves.
Not available.

Consult local authorities for acceptable exposure limits.

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9. Physical and chemical properties

**Physical state**
Liquid.

**Odor**
Strong.

**Color**
Brown. (Dark.)

**Heat of combustion**
Not available.

**Density**
877 kg/m³ (0.877 g/cm³) at 15.6°C

**Solubility**
Insoluble in cold water, hot water.

**Viscosity**
Kinematic: 10 to 13 mm²/s (10 to 13 cSt) at 40°C

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10. Stability and reactivity

**Stability and reactivity**
The product is stable.

**Conditions to avoid**
Not available.

**Incompatibility with various substances**
Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products**
These products are halogenated compounds, hydrogen chloride.

**Hazardous polymerization**
Will not occur.
11. Toxicological information

Chronic toxicity

**Carcinogenic effects**
No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

**Mutagenic effects**
No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

**Reproductive effects**
No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

**Teratogenic effects**
No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

**Other chronic toxicity data**
Chlorinated Paraffin: The specific chlorinated paraffin included in this product has not been tested or proven to cause adverse health effects. Other chlorinated paraffins have been tested and show evidence of carcinogenicity in laboratory animals via ingestion.

12. Ecological information

Ecotoxicity
No testing has been performed by the manufacturer.

13. Disposal considerations

**Waste information**
Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

**RCRA Waste Code(s)**
USED OIL

Consult your local or regional authorities.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)

15. Regulatory information

**U.S. Federal regulations**
US INVENTORY (TSCA): In compliance.

This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: GUN DRILL OIL 2190: Immediate (Acute) Health Hazard

**SARA 313**

**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.

**CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):** This material is not regulated under CERCLA Sections 103 and 107.

**State regulations**
No products were found.
Inventories

AUSTRALIAN INVENTORY (AICS): In compliance.
CANADA INVENTORY (DSL): In compliance.
CHINA INVENTORY (IECS): In compliance.
EC INVENTORY (EINECS/ELINCS): In compliance.
JAPAN INVENTORY (ENCS): Not determined.
KOREA INVENTORY (ECL): In compliance.
PHILIPPINE INVENTORY (PICCS): In compliance.

16. Other information

Label requirements

CAUTION!
MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

HMIS® Rating :
Health 1 - National Fire Protection
Flammability 1 - Association (U.S.A.)
Physical 0
Hazard
Personal B
protection

Other special considerations
PETROLEUM OIL: STEL = 10 mg/m³. Using terminology of the International Agency for Research on Cancer (IARC), the petroleum distillates listed in Section II are classified by the supplier as severely processed. Not all those listed in Section II may be present. The supplier has stated that these distillates do not require a carcinogen label as defined by OSHA 29 CFR 1910.1200.

History

Date of issue 10/06/2006.
Date of previous issue 07/21/2005.
Prepared by Product Stewardship

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 us.

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.