Section 1. Identification

Product name: Braycote 444
SDS #: 469025
Historic SDS #: 25087
Code: 469025-US03

Relevant identified uses of the substance or mixture and uses advised against

Product use: Grease for industrial applications
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Supplier
Castrol Industrial North America, Inc.
150 W. Warrenville Road
Naperville, IL 60563
Product Information: +1-877-641-1600

BP Lubricants USA Inc.
1500 Valley Road
Wayne, NJ 07470
Telephone: (973) 633-2200

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
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

Hazards not otherwise classified: 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.
Thermal degradation products may include hydrogen fluoride gas. Possibility of corrosive damage from hydrofluoric acid and systemic fluoride toxicity should be considered where exposure has occurred to such degradation products.
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.

Substance/mixture | Mixture
--- | ---
Ingredient name | Calcium carbonate
 | Base oil - highly refined
CAS number | 471-34-1
 | Varies - See Key to abbreviations
% | ≥1 - <3
 | ≥1 - <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 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.

**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.

**Notes to physician**
Treatment should in general be symptomatic and directed to relieving any effects.

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, discolored 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 minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

**Specific treatments**
No specific treatment.

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**
In case of fire, use water fog, alcohol resistant 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.

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**Product name** Braycote 444

**Product code** 469025-US03

**Version** 2

**Date of issue** 09/22/2015

**Format** US

**Language** ENGLISH
Section 5. Fire-fighting measures

Hazardous combustion products
Combustion products may include the following:
- carbon dioxide
- carbon monoxide
- halogenated compounds
- metal oxide/oxides

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.

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 spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

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 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 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. If emergency personnel are unavailable, contain spilled material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. 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. Avoid excessive heat.
Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

**Calcium carbonate**

- **OSHA PEL (United States).**
  TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993 Form: Respirable fraction
  TWA: 15 mg/m³ 8 hours. Issued/Revised: 6/1993 Form: Total dust

**Base oil - highly refined**

- **ACGIH TLV (United States).**
  TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction
  OSHA PEL (United States).
  TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993

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 property 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: Butyl 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.

Consult your supervisor or Standard Operating Procedure (S.O.P) for special handling instructions.

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.
Section 8. Exposure controls/personal protection

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

Appearance  
Physical state  Grease  
Color  Green.  
Odor  Not available.  
Odor threshold  Not available.  
pH  Not available.  
Melting point  Not available.  
Boiling point  Not available.  
Flash point  Open cup: 218°C (424.4°F) [Cleveland.]  
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 20°C  
Solubility  insoluble in water.  
Partition coefficient: n-octanol/water  Not available.  
Auto-ignition temperature  Not available.  
Decomposition temperature  Not available.  
Viscosity  Kinematic: 21 mm²/s (21 cSt) at 40°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 excessive heat.

Incompatible materials  Reactive or incompatible with the following materials: oxidizing materials. Active metals, metal oxides at temperatures > 280°C, Lewis acid catalysts, strong or non-aqueous alkali.

Hazardous decomposition products  When conditions to avoid and/or incompatible materials are met, the following decomposition products may occur: carbonyl difluoride, hydrogen fluoride (HF)
Section 11. Toxicological information

### Information on toxicological effects

#### Routes of exposure
- Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td>- irritation</td>
</tr>
<tr>
<td></td>
<td>- dryness</td>
</tr>
<tr>
<td></td>
<td>- cracking</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Delayed and immediate effects and also chronic effects from short and long term exposure

<table>
<thead>
<tr>
<th>Exposure Duration</th>
<th>Potential Immediate Effects</th>
<th>Potential Delayed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Long term</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Potential chronic health effects

<table>
<thead>
<tr>
<th>Category</th>
<th>Effect Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Numerical measures of toxicity

#### Acute toxicity estimates

- Not available.

### Additional information

Inhalation of decomposition products (occurs if heated > 260 C) or of smoke from contaminated tobacco products may cause respiratory irritation and induce Polymer Fume Fever condition. Symptoms of exposure to decomposition products are: lung irritation, pulmonary edema, flu-like symptoms (example - fever chills).
Section 12. Ecological information

Toxicity
No testing has been performed by the manufacturer.

Persistence and degradability
Not expected to be rapidly degradable.

Bioaccumulative potential
Not available.

Mobility in soil
Soil/water partition coefficient ($K_{OC}$) Not available.
Mobility Non-volatile. Grease. insoluble in water.

Other adverse effects
No known significant effects or critical hazards.

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

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.
Section 15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b) All components are listed or exempted.

TSCA 12(b) one-time export: Polytetrafluoroethylene

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification Not applicable.

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthenic acids, zinc salts</td>
<td>12001-85-3</td>
<td>2.627</td>
</tr>
<tr>
<td>Naphthenic acids, zinc salts</td>
<td>12001-85-3</td>
<td>2.627</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts None of the components are listed.

New Jersey The following components are listed: ZINC compounds

Pennsylvania The following components are listed: ZINC COMPOUNDS; ETHENE, TETRAFLUORO-, HOMOPOLYMER

California Prop. 65 No products were found.

Other regulations

Australia inventory (AICS) All components are listed or exempted.

Canada inventory At least one component is not listed.

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

Japan inventory (ENCS) At least one component is not listed.

Korea inventory (KECI) All components are listed or exempted.

Philippines inventory (PICCS) All components are listed or exempted.

Taiwan inventory (CSNN) All components are listed or exempted.

REACH Status The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>0</td>
</tr>
<tr>
<td>Personal protection</td>
<td>X</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)
A NFPA health hazard rating of “3” is assigned due to toxicity of thermal decomposition products and fluorine (HF); otherwise, the material itself warrants a health hazard rating of “1”.

**History**

**Date of issue/Date of revision**
09/22/2015.

**Date of previous issue**
03/24/2015.

**Key to abbreviations**

- ACGIH = American Conference of Industrial Hygienists
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- CAS Number = Chemical Abstracts Service Registry Number
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- OEL = Occupational Exposure Limit
- SDS = Safety Data Sheet
- STEL = Short term exposure limit
- TWA = Time weighted average
- UN = United Nations
- UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.
- Variates = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 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, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

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.