



## 1. Chemical product and company identification

**Product name** BRAYCOTE 640 ACMS  
**MSDS #** 459637  
**Historic MSDS #:** 25044-AM  
**Code** 459637-US09  
**Product use** Lubricant  
**Manufacturer** Castrol Industrial North America, Inc.  
 150 W. Warrenville Road  
 Naperville, IL 60563  
**Supplier** SPI-Chem™ SPI Supplies Division Structure Probe, Inc.  
 P.O. Box 656 West Chester, PA 19381-0656 USA  
 Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755  
 E-mail: spi3spi@2spi.com WWW: http://www.2spi.com  
**EMERGENCY SPILL INFORMATION:** 1 (800) 424-9300 CHEMTREC (USA)

## 2. Composition/information on ingredients

Ingredient name	CAS #	% by weight
molybdenum sulfide	1317-33-5	40 - 45

## 3. Hazards identification

**Physical state** Grease  
**Color** Grey  
**Emergency overview** CAUTION!  
 MAY CAUSE EYE IRRITATION.  
 MAY CAUSE SKIN IRRITATION.  
 MAY CAUSE RESPIRATORY TRACT IRRITATION.  
 Avoid contact with eyes, skin and 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 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.
- Inhalation** May cause respiratory tract irritation.
- Ingestion** May causes gastrointestinal irritation and diarrhea.

**Medical conditions aggravated by over-exposure** None identified.

**See toxicological Information (section 11).**

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## 4. First aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.
<b>Skin contact</b>	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.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if irritation develops.
<b>Ingestion</b>	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.

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## 5. Fire-fighting measures

<b>Flammability of the product</b>	May be combustible at high temperature.
<b>Products of combustion</b>	These products are carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> etc.), halogenated compounds, hydrogen fluoride. Some metallic oxides.
<b>Unusual fire/explosion hazards</b>	This material is not explosive as defined by established regulatory criteria.
<b>Fire-fighting media and instructions</b>	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.
<b>Protective clothing (fire)</b>	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
<b>Special remarks on fire hazards</b>	No additional remark.

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## 6. Accidental release measures

<b>Personal precautions</b>	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").
<b>Environmental precautions and clean-up methods</b>	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.
<b>Personal protection in case of a large spill</b>	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

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## 7. Handling and storage

<b>Handling</b>	Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Use only with adequate ventilation. Wash thoroughly after handling. Do not ingest.
<b>Storage</b>	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

molybdenum sulfide

#### Occupational exposure limits

##### ACGIH TLV (United States, 2003).

TWA: 3 mg/m<sup>3</sup> 8 hour(s). Form: Insoluble ( Respirable fraction )

TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Insoluble ( Inhalable fraction )

TWA: 3 mg/m<sup>3</sup> 8 hour(s). Form: Insoluble

##### OSHA PEL (United States, 8/1997).

TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust

#### 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

Safety glasses with side shields or chemical goggles.

##### Skin and body

Avoid prolonged or repeated contact with skin. 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.

## 9. Physical and chemical properties

#### Physical state

Grease

#### Odor

Odorless.

#### Color

Grey

#### Heat of combustion

Not available.

#### Specific gravity

1.8 to 2

#### Solubility

insoluble in water.

## 10. Stability and reactivity

#### Stability and reactivity

The product is stable.

#### Conditions to avoid

High temperatures

#### Incompatibility with various substances

Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

#### Hazardous decomposition products

These products are halogenated compounds, hydrogen fluoride.

#### Hazardous polymerization

Will not occur.

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## 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.

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## 12. Ecological information

### Ecotoxicity

No testing has been performed by the manufacturer.

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## 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.

### Remarks

No additional remark.

### Consult your local or regional authorities.

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## 14. Transport information

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

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## 15. Regulatory information

### U.S. Federal regulations

US INVENTORY (TSCA): In compliance.

TSCA 12(b) one-time export notification:: Polytetrafluoroethylene

TSCA 12(b) annual export notification: Polytetrafluoroethylene

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

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: BRAYCOTE 640

ACMS: 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

Massachusetts RTK:molybdenum sulfide

New Jersey:molybdenum sulfide

Pennsylvania RTK:Polytetrafluoroethylene (generic environmental hazard)

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**WARNING:** This product contains a chemical known to the State of California to cause cancer. Tetrafluoroethylene, inhibited

## Inventories

AUSTRALIAN INVENTORY (AICS): Not determined.

CANADA INVENTORY (DSL): In compliance.

CHINA INVENTORY (IECS): In compliance.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (ENCS): Not determined.

KOREA INVENTORY (ECL): In compliance.

PHILIPPINE INVENTORY (PICCS): In compliance.

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## 16. Other information

### Label requirements

CAUTION!

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

### HMIS® Rating :

<b>Health</b>	<b>1</b>	<b>-</b>	<b>National Fire Protection Association (U.S.A.)</b>
<b>Flammability</b>	<b>1</b>		
<b>Physical Hazard</b>	<b>0</b>		
<b>Personal protection</b>	<b>B</b>		



### Other special considerations

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

09/13/2006.

#### Date of previous issue

07/20/2006.

#### 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.*

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