



# Material Safety Data Sheet

## Section 1. Chemical Product and Company Identification

<b>Common Name</b>	<b>BRAYCOTE 803 EP</b>	<b>Code</b>	27156-AM
<b>Supplier</b>	CASTROL INDUSTRIAL NORTH AMERICA INC. 1001 WEST 31ST STREET DOWNERS GROVE, IL 60515-1280 Product Information: 630 241-4000	<b>Validation Date</b>	07/09/2002
<b>Synonym</b>	Not available.	<b>Print Date</b>	07/09/2002
<b>Trade name</b>	BRAYCOTE IS REGEISTERED IN THE U.S. PATENT AND TRADEMARK OFFICE.	<b>Responsible Name</b>	Product Stewardship
<b>Material Uses</b>	Industrial applications	<b>In Case of Emergency</b>	CHEMTREC (800) 424-9300
<b>Manufacturer</b>	CASTROL INDUSTRIAL NORTH AMERICA INC 1001 WEST 31ST STREET DOWNERS GROVE, IL 60515-1280		

## Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
MOLYBDENUM SULFIDE (MOS2)	1317-33-5	1-5	<b>ACGIH TLV (United States, 2001). Notes: Respirable fraction</b> TWA: 3 mg/m <sup>3</sup> Form: Insoluble ACGIH (United States) Notes: Inhalable Fraction TWA: 10 mg/m <sup>3</sup> <b>OSHA PEL (United States, 1971).</b> TWA: 15 MGM3 Form: Total dust <b>OSHA PEL 1989 (United States, 1989). Notes: Vacated Rule</b> TWA: 10 mg/m <sup>3</sup> Form: Total dust
CERIUM FLUORIDE (CEF3)	7758-88-5	1-5	<b>ACGIH TLV (United States, 2001). Notes: Identifies substances identified in the BEI documetations for Methemoglobin inducers (for which methemoglobin is the principle toxicity) and organophosphorous cholinesterase inhibitors are part of this notation.</b> TWA: 2.5 mg/m <sup>3</sup> <b>OSHA PEL (United States, 1971).</b> TWA: 2.5 MGM3 <b>OSHA PEL 1989 (United States, 1989). Notes: See Table Z-2.</b> TWA: 2.5 mg/m <sup>3</sup>

## Section 3. Hazards Identification

<b>Physical State and Appearance</b>	Solid.  Mild. Odor Grey. Black. Paste.
<b>Emergency Overview</b>	CAUTION! MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

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Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Do not ingest.

**Routes of Entry** Skin contact. Eye contact. Inhalation. Ingestion.

**Potential Acute Health Effects**

**Eyes** Moderately irritating to the eyes.

**Skin** Moderately irritating to the skin.

**Inhalation** Moderately irritating to the respiratory system.

**Ingestion** Ingestion may cause gastrointestinal irritation and diarrhea.

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).

**Potential Chronic Health Effects**

**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.

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

**Medical Conditions**

**Aggravated by Overexposure:**

Repeated or prolonged exposure is not known to aggravate medical condition.

**Overexposure /Signs/Symptoms**

Not available.

See Toxicological Information (section 11)

#### Section 4. First Aid Measures

**Eye Contact** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Obtain immediate medical attention if product is injected under the skin.

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

**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Notes to Physician** Not available.

#### Section 5. Fire Fighting Measures

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

**Autoignition Temperature** Not available.

**Flash Points** Not available.

**Flammable Limits** Not available.

**Products of Combustion** These products are carbon oxides (CO, CO<sub>2</sub>), sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub>...), halogenated compounds, hydrogen fluoride. Some metallic oxides.

**Fire Hazards in Presence of Various Substances** Not available.

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**Explosion Hazards in Presence of Various Substances** Non-explosive in presence of open flames, sparks and static discharge, of shocks.

**Fire Fighting Media and Instructions**  
 SMALL FIRE: Use DRY chemical powder.  
 LARGE FIRE: Use water spray, fog or foam. Do not use water jet.  
 Cool closed containers exposed to fire with water.

**Protective Clothing (Fire)**  
 Be sure to use an approved/certified respirator or equivalent.

**Special Remarks on Fire Hazards** A NFPA health hazard rating of "3" is assigned due to due to toxicity of thermal decomposition products and fluorine (HF); otherwise, the material itself warrants a health hazard rating of "1".

**Special Remarks on Explosion Hazards** Not available.

### Section 6. Accidental Release Measures

**Small Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Large Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not allow to enter drains or watercourses.

### Section 7. Handling and Storage

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Do not ingest.

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store near heat, flame or strong oxidizing agents. 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.

### Section 8. Exposure Controls, Personal Protection

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Use NIOSH/MSHA approved respirator with organic vapor cartridge if vapor concentrations exceeds permissible exposure limit. Not normally required; provide exhaust if temperature is expected to exceed 260C.

#### Personal Protection

**Eyes** Safety glasses with side shield or chemical goggles.

**Body** Synthetic apron. Wear appropriate protective clothing to prevent skin contact.

**Respiratory** A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.

**Hands** Impervious gloves.

**Feet** Not applicable.

#### Protective Clothing (Pictograms)



**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.

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Product Name	Exposure Limits
MOLYBDENUM SULFIDE (MOS2)	<b>ACGIH TLV (United States, 2001). Notes: Respirable fraction</b> TWA: 3 mg/m <sup>3</sup> Form: Insoluble ACGIH (United States) Notes: Inhalable Fraction TWA: 10 mg/m <sup>3</sup> <b>OSHA PEL (United States, 1971).</b> TWA: 15 MGM3 Form: Total dust <b>OSHA PEL 1989 (United States, 1989). Notes: Vacated Rule</b> TWA: 10 mg/m <sup>3</sup> Form: Total dust
CERIUM FLUORIDE (CEF3)	<b>ACGIH TLV (United States, 2001). Notes: Identifies substances identified in the BEI documetations for Methemoglobin inducers (for which methemoglobin is the principle toxicity) and organophosphorous cholinesterase inhibitors are part of this notation.</b> TWA: 2.5 mg/m <sup>3</sup> OSHA PEL (United States, 1971). TWA: 2.5 MGM3 <b>OSHA PEL 1989 (United States, 1989). Notes: See Table Z-2.</b> TWA: 2.5 mg/m <sup>3</sup>
Consult local authorities for acceptable exposure limits.	

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Solid.	<b>Odor</b>	Mild. Odor
<b>Boiling/Condensation Point</b>	Not available.	<b>Taste</b>	Not available.
<b>Melting/Freezing Point</b>	Not available.	<b>Color</b>	Grey. Black. Paste.
<b>pH Concentrate</b>	Not applicable.		
<b>pH Dilution % and Value</b>	Not applicable.		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	1.9 to 2.1 (Water = 1)		
<b>Vapor Pressure</b>	Not available.		
<b>Vapor Density</b>	Not available.		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Evaporation Rate</b>	Not available.		
<b>VOC</b>	Not available.	<b>VOC Method</b>	Not available.
<b>Viscosity</b>	Not available.		
<b>Solubility</b>	Insoluble in cold water.		
<b>Physical Chemical Comments</b>	Not available.		

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	None known.
<b>Incompatibility with Various Substances</b>	Active metals, metal oxides at temperatures > 280 C, Lewis acid catalysts, strong or non-aqueous alkali.
<b>Hazardous Decomposition Products</b>	These products are halogenated compounds, hydrogen fluoride.
<b>Hazardous Polymerization</b>	Will not occur.

**Section 11. Toxicological Information**

<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.
<b>Chronic Effects on Humans</b>	<b>CARCINOGENIC EFFECTS:</b> 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). <b>MUTAGENIC EFFECTS:</b> No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen. <b>TERATOGENIC EFFECTS:</b> No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic. <b>DEVELOPMENTAL TOXICITY:</b> Not available.
<b>Other Toxic Effects on Humans</b>	Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation (lung irritant).
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Special Remarks</b>	Remove person from exposure. If breathing is difficult, administer oxygen. Polymer Fume Fever symptoms should subside within 24 hours. Obtain immediate medical attention if product is injected under the skin.
<b>Special Remarks on Other Toxic Effects on Humans</b>	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**

<b>Ecotoxicity</b>	Not available.
<b>BOD and COD</b>	Not available.
<b>Biodegradable/OECD</b>	Not available.
<b>Mobility</b>	Not available.
<b>Products of Degradation</b>	These products are carbon oxides (CO, CO <sub>2</sub> ), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> ...), halogenated compounds. Some metallic oxides. Hydrogen Fluoride (HF)
<b>Toxicity of the Products of Biodegradation</b>	Not available.
<b>Special Remarks on the Products of Biodegradation</b>	Not available.

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**Section 13. Disposal Considerations**

**Waste Information** Waste must be disposed of in accordance with federal state and local environmental control regulations. Scrape up excess grease and store in closed containers until disposal. Clean up area with appropriate cleaner. Store in metal container until disposal. All recovered material should be packaged, transported and disposed of (or reclaimed) using good engineering practices. Disposal method must be in compliance with Local, State & Federal Regulations regarding health, air & water pollution. DO NOT BURN MATERIALS CONTAMINATED WITH THIS PRODUCT.

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

**Waste Stream** Not available.

**Consult your local or regional authorities.**

**Section 14. Transport Information**

**DOT Classification** Not a DOT controlled material (United States).

Not regulated.

**Marine Pollutant** Not pollutant.

**Special Provisions for Transport** NOT REGULATED

**ADR/RID Classification** Not determined.

**IMO/IMDG Classification** Not determined.

**ICAO/IATA Classification** Not determined.

**Section 15. Regulatory Information****U.S. Federal Regulations**

SARA 302/304 emergency planning and notification: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: BRAYCOTE 803 EP: immediate health hazard.

SARA 313 toxic chemical notification and release reporting: No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

**State Regulations**

Pennsylvania RTK: POLYTETRAFLUOROETHYLENE DEDOMPOSITION PRODUCTS (generic environmental hazard)

Massachusetts RTK: MOLYBDENUM SULFIDE

New Jersey: MOLYBDENUM SULFIDE

CALIFORNIA PROPOSITION 65: Warning! This product contains trace amounts of tetrafluoroethylene which the State of California has found to cause cancer, birth defects or other reproductive harm.

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**Inventory Lists**

TSCA 8(b) inventory: All components of this product are listed on (or meet the exemption requirements of) the applicable inventory list.

CEPA DSL: One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

Australia (NICNAS): One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

Korea (TCCL): One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

Philippines (RA6969): One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

MITI: One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

EINECS: One or more of the materials contained in this product may not appear on the applicable inventory list. Please consult the manufacturer for additional information.

**Section 16. Other Information**

**Label Requirements**

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

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

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	C

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



**References**

Not available.

**Other Special Considerations**

No component known to be present in this product at >0.1% is presently listed as a carcinogen by IARC, NTP or OSHA.

This product is a mixture and is NOT listed in the TSCA Inventory. The individual ingredients in the product are listed in the TSCA Inventory.

Validated by Product Stewardship on 07/09/2002.

Printed 07/09/2002.

CHEMTREC (800) 424-9300

**Notice to Reader**

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