1. MATERIAL AND COMPANY IDENTIFICATION

Material Name: Gumout Fuel Injector Cleaner
Uses: Cleaner.

Manufacturer/Supplier: SOPUS Products
PO BOX 4427
Houston, TX 77210-4427
USA

MSDS Request: 877-276-7285

Emergency Telephone Number
Spill Information: 877-242-7400
Health Information: 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine</td>
<td>8008-20-6</td>
<td>&lt;= 100.00 %</td>
</tr>
<tr>
<td>Cumene</td>
<td>98-82-8</td>
<td>1.00 - 5.00 %</td>
</tr>
<tr>
<td>1,3,5-Trimethyl benzene</td>
<td>108-67-8</td>
<td>1.00 - 5.00 %</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>1.00 - 5.00 %</td>
</tr>
</tbody>
</table>

Hazardous Components: Contains kerosine.

3. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Emergency Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odour: Pale yellow. Liquid at room temperature. Hydrocarbon.</td>
</tr>
<tr>
<td>Health Hazards: Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.</td>
</tr>
<tr>
<td>Safety Hazards: Flammable.</td>
</tr>
<tr>
<td>Environmental Hazards: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
</tbody>
</table>

Health Hazards
Inhalation: Vapours may cause drowsiness and dizziness.
Skin Contact: May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking.
Eye Contact: May cause slight irritation to eyes.
Ingestion: Harmful: may cause lung damage if swallowed.

Signs and Symptoms
If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.
Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

Aggravated Medical Condition: Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin. Respiratory system.

Environmental Hazards: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Additional Information: Under normal conditions of use or in a foreseeable emergency, this product meets the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

**Skin Contact:** Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

**Eye Contact:** Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

**Ingestion:** If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101°F (37°C), shortness of breath, chest congestion or continued coughing or wheezing.

**Advice to Physician:** Treat symptomatically. Potential for chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal. Call a doctor or poison control center for guidance.

### 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

**Flash point:** Typical 61.7 °C / 143.1 °F (Tag Closed Cup (ASTM D56))

**Lower / upper Flammability or Explosion limits:** Typical 0.60 - 6 % (V)

**Auto ignition temperature:** > 200 °C / 392 °F

**Specific Hazards:** Will float and can be reignited on surface water. Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

**Suitable Extinguishing Media:** Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

**Unsuitable Extinguishing Media:** Do not use water in a jet.
Gumout Fuel Injector Cleaner
MSDS# 10517
Version 1.0
Effective Date 03/19/2010

Media
Protective Equipment for Firefighters: Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.
Additional Advice: Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective measures: Avoid contact with skin and eyes. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Clean Up Methods: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional Advice: Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

General Precautions: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Handling: Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. Use only in well-ventilated areas. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.

Storage: Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Use properly labelled and closeable containers. Keep container tightly closed. Storage Temperature: 0 - 50 °C / 32 - 122 °F

Product Transfer: Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire. Earth all equipment.
Material Safety Data Sheet

Recommended Materials: For containers or container linings, use mild steel or high density polyethylene.

Unsuitable Materials: PVC.

Additional Information: Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Type</th>
<th>ppm</th>
<th>mg/m3</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine</td>
<td>ACGIH</td>
<td>TWA(Non-aerosol.)</td>
<td>200 mg/m3</td>
<td>P: Application restricted to conditions in which there are negligible aerosol exposures as total hydrocarbon vapor</td>
<td></td>
</tr>
<tr>
<td>Kerosine</td>
<td>ACGIH</td>
<td>SKIN_DES(N on-aerosol.)</td>
<td>Can be absorbed through the skin as total hydrocarbon vapor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>50 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>OSHA Z1</td>
<td>PEL</td>
<td>50 ppm</td>
<td>245 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>OSHA Z1</td>
<td>SKIN_DES</td>
<td>Can be absorbed through the skin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>OSHA Z1A</td>
<td>TWA</td>
<td>50 ppm</td>
<td>245 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Cumene</td>
<td>OSHA Z1A</td>
<td>SKIN_FINAL</td>
<td>Can be absorbed through the skin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethyl benzene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>25 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethyl benzene</td>
<td>OSHA Z1A</td>
<td>TWA</td>
<td>25 ppm</td>
<td>125 mg/m3</td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>25 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>OSHA Z1A</td>
<td>TWA</td>
<td>25 ppm</td>
<td>125 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Personal Protective Equipment: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection: No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of...
material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].

Hand Protection: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye Protection: Wear safety glasses or full face shield if splashes are likely to occur.

Protective Clothing: Skin protection not ordinarily required beyond standard issue work clothes. It is good practice to wear chemical resistant gloves.

Monitoring Methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Environmental Exposure Controls: Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow. Liquid at room temperature.
Odour: Hydrocarbon.
pH: Not applicable.
Initial Boiling Point and Boiling Range: > 150 °C / 302 °F estimated value(s)
Pour point: Data not available
Flash point: Typical 61.7 °C / 143.1 °F (Tag Closed Cup (ASTM D56))
Lower / upper Flammability or Explosion limits: Typical 0.60 - 6 % (V)
Auto-ignition temperature: > 200 °C / 392 °F
Vapour pressure: < 300 Pa at 20 °C / 68 °F (estimated value(s))
Density: Data not available
Water solubility: Negligible.
n-octanol/water partition coefficient (log Pow): > 3
Material Safety Data Sheet

Kinematic viscosity : Typical 7 mm²/s at 40 °C / 104 °F
Vapour density (air=1) : > 5 (estimated value(s))
Evaporation rate (nBuAc=1) : Data not available

10. STABILITY AND REACTIVITY

Stability : Stable.
Conditions to Avoid : Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid : Strong oxidising agents.
Hazardous Decomposition : Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment : Information given is based on data on the components and the toxicology of similar products.
Acute Oral Toxicity : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Acute Dermal Toxicity : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity : Expected to be of low toxicity: LC50 >20 mg/l / 4 h, Rat
High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Skin Irritation : Moderately irritating to skin (but insufficient to classify).
Eye Irritation : Expected to be slightly irritating.
Respiratory Irritation : Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination.
Sensitisation : Not expected to be a skin sensitiser.
Repeated Dose Toxicity : Not expected to be a hazard.
Mutagenicity : Not considered a mutagenic hazard.
Carcinogenicity : Not classified as a carcinogen.

<table>
<thead>
<tr>
<th>Material</th>
<th>Carcinogenicity Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine</td>
<td>ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.</td>
</tr>
<tr>
<td>Kerosine</td>
<td>IARC 3: Classification not possible from current data.</td>
</tr>
</tbody>
</table>

Reproductive and Developmental Toxicity : Not expected to be a hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity : Poorly soluble mixture. Expected to be toxic: LL/EL/IL50 1-10 mg/l (to aquatic organisms) (LL/EL50 expressed as the
nominal amount of product required to prepare aqueous test extract).

**Mobility**

- Liquid under most environmental conditions. Floats on water.
- Contains volatile components. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. If it enters soil, it will adsorb to soil particles and will not be mobile.

**Persistence/degradability**

- Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment. The volatile components oxidise rapidly by photochemical reactions in air.

**Bioaccumulation**

- Contains components with the potential to bioaccumulate.

**Other Adverse Effects**

- Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

### 13. DISPOSAL CONSIDERATIONS

**Material Disposal**

- Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

**Container Disposal**

- Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Do not, puncture, cut, or weld uncleaned drums. Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

**Local Legislation**

- Disposal should be in accordance with applicable regional, national, and local laws and regulations.

### 14. TRANSPORT INFORMATION

#### US Department of Transportation Classification (49CFR)

- **Identification number**: UN 1268
- **Proper shipping name**: Petroleum distillates, n.o.s.
- **Class / Division**: 3
- **Packing group**: III
- **Emergency Response Guide No.**: 128

#### IMDG

- **Identification number**: UN 1268
- **Proper shipping name**: PETROLEUM DISTILLATES, N.O.S.
- **Class / Division**: 3
- **Packing group**: III
- **Marine pollutant**: No
Material Safety Data Sheet

IATA (Country variations may apply)
Identification number UN 1268
Proper shipping name Petroleum distillates, n.o.s.
Class / Division 3
Packing group III

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status

EINECS All components listed or polymer exempt.
TSCA All components listed.

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA)

Gumout Fuel Injector Cleaner () Reportable quantity: 4016 lbs
Cumene (98-82-8) Reportable quantity: 5000 lbs
Propyl benzene (103-65-1) Reportable quantity: 100 lbs

SARA Toxic Release Inventory (TRI) (313)

Cumene (98-82-8) 2.49%
1,2,4-Trimethylbenzene (95-63-6) 2.49%

State Regulatory Status

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List

Kerosine (8008-20-6) Listed.
Cumene (98-82-8) Listed.
Material Safety Data Sheet

Propyl benzene (103-65-1) Listed.
1,3,5-Trimethyl benzene (108-67-8) Listed.
1,2,4-Trimethylbenzene (95-63-6) Listed.

Pennsylvania Right-To-Know Chemical List

Kerosine (8008-20-6) Listed.
Cumene (98-82-8) Environmental hazard.
Propyl benzene (103-65-1) Listed.
1,3,5-Trimethyl benzene (108-67-8) Listed.
1,2,4-Trimethylbenzene (95-63-6) Environmental hazard.

16. OTHER INFORMATION

MSDS Version Number : 1.0
MSDS Effective Date : 03/19/2010
MSDS Revisions : A vertical bar (|) in the left margin indicates an amendment from the previous version.
MSDS Regulation : The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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