### Section 1 - Chemical Product and Company Identification

**Product Code:** Prefix 06B, 07FHD

**Product Use:** For blending with asphalt. If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

**Synonyms:** NA

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 400  
Richardson, TX 75080  
Phone: 1-800-669-5740  
Emergency # 1-800-468-1760  
www.safety-kleen.com

**Issue Date:**  
March 19, 2014

**Supersedes Issue Date**  
July 17, 2013

**Original Issue Date**  
October 31, 1988

PREPARED BY: Product MSDS Coordinator  
APPROVED BY: MSDS Task Force

### Section 2 - Hazardous Identification

**EMERGENCY OVERVIEW**

**Appearance**

For hot products: Viscous, semi-solid, black, asphalt odor.  
For cooled products: Solid, black, asphalt odor.

**Signal Word**

DANGER!

**Physical Hazards**

For hot products: Extremely flammable liquid and vapor.  
For hot products: Vapor may cause flash fire.

**Health Hazards**

For hot product: May be fatal if inhaled.  
Hot product can burn eyes and skin.  
May be harmful if swallowed.  
Cooled product may irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

**POTENTIAL HEALTH EFFECTS**

**Inhalation (Breathing)**

This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs). Inhaling hydrogen sulfide released from hot products in enclosed areas may cause unconsciousness, convulsions, suffocation, coma, and death. Dusts or particles from cooled product may cause mechanical irritation.

**Eyes**

Direct contact with hot product may cause burns. Contact with vapors or cooled product may cause irritation.
Skin
Direct contact with hot product may cause burns. Contact with vapors or cooled product may cause irritation. Not likely to be absorbed through the skin in harmful amounts.

Ingestion (Swallowing)
May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Medical Conditions Aggravated by Exposure
Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Chronic
Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Prolonged or repeated skin contact with hot vapors may also cause acne-like lesions, mild keratoses (horny growth), photosensitization (sensitive to light), or melanosis (patchy skin darkening).

Cancer Information
No known carcinogenicity. For more information, see SECTION 11: CARCINOGENICITY. Also see SECTION 15: CALIFORNIA.

Environmental Hazards
Not available. Also see SECTION 12: ECOLOGICAL INFORMATION.

### Section 3 - Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>129893-17-0</td>
<td>Lubricating oils, used, residues</td>
<td>99.9-100</td>
</tr>
<tr>
<td>7783-06-4</td>
<td>Dihydrogen monosulfide</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

### Section 4 - First Aid Measures

**Inhalation (Breathing)**
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

**Eyes**
If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately. Do not attempt to removed cooled product from eye as it can cause tissue damage.

**Skin**
For burns from contact with hot material, do NOT remove solidified material as this might cause skin tearing. Cover area with sterile, dry dressing. Immediately get medical attention. If contact is with cooled material, remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

**Ingestion (Swallowing)**
Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

**Notes to Physicians**
Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.
*** Section 5 - Fire Fighting Measures ***

Hazardous Combustion Products
Decomposition and combustion materials may be toxic. Burning may produce hydrogen sulfide, sulfur oxides, carbon monoxide, and unidentified organic compounds.

Conditions of Flammability
Hot Product,: Heat, sparks, or flame., Cooled product may burn, but do not ignite readily.

Extinguishing Media
Carbon dioxide, dry chemical, or water fog. Water spray or foam may cause frothing.

Protective Equipment For Firefighting
A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Equipment/Instructions
Keep storage containers cool with water spray.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Fire and Explosion Hazards
Hot product is a vapor explosion hazard indoors, outdoors, or in sewers. Vapor may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire or explosion hazard. Heated containers may rupture, explode, or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact or static discharge.

*** Section 6 - Accidental Release Measures ***

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Hot product: contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Cooled product: collect and dispose in proper container.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures
This product is normally handled at high temperatures. Vapors from hot material may be explosive: keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Sense of smell becomes rapidly fatigued and cannot be relied upon to warn of the continuous presence of hydrogen sulfide. Avoid contact with eyes, skin, clothing, and shoes. Do not put in mouth. Do not chew or swallow. Do not smoke when using this product.

Shipping and Storing
Keep away from water when loading and unloading. Use dry container to avoid violent eruptions and splattering of hot product. Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORTATION INFORMATION for Packing Group information.
### Section 8 - Exposure Controls / Personal Protection

#### Exposure Guidelines

**Component Exposure Limits**

- **Lubricating oils, used, residues (129893-17-0)**
  - **ACGIH:** 0.5 mg/m³ TWA (as benzene soluble aerosol, fume, inhalable fraction, related to Asphalt)
  - **NIOSH:** 5 mg/m³ Ceiling (fume, 15 min, related to Asphalt)

- **Dihydrogen monosulfide (7783-06-4)**
  - **ACGIH:** 1 ppm TWA
  - 5 ppm STEL
  - **OSHA Final:**
    - 20 ppm Ceiling
  - **OSHA Vacated:**
    - 10 ppm TWA; 14 mg/m³ TWA
    - 15 ppm STEL; 21 mg/m³ STEL
  - **NIOSH:**
    - 10 ppm Ceiling (10 min); 15 mg/m³ Ceiling (10 min)

#### Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

#### Personal Protective Equipment: Respiratory

Sense of smell becomes rapidly fatigued and cannot be relied upon to warn of the continuous presence of hydrogen sulfide. Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of hydrogen sulfide may exceed applicable exposure limits. Otherwise, use NIOSH-certified P- or R-series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

#### Personal Protective Equipment: Eyes/Face

Where eye contact or exposure to vapor is likely, wear chemical goggles; contact lens use is not recommended.

#### Personal Protective Equipment: Skin

Where contact with hot product is likely, wear combination temperature and chemical protective gloves. For contact with cooled product, wear appropriate product resistant gloves.

When products are heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

#### Personal Protective Equipment: Personal Hygiene

Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

#### Other Personal Protective Equipment

Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.
Material Safety Data Sheet

**Section 9 - Physical & Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Odor</td>
<td>For hot products: Viscous, semi-solid, black, asphalt odor. For cooled products: Solid, black, asphalt odor.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>800°F (426°C) (minimum)</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>0.1 ppm (based on hydrogen sulfide)</td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Density</td>
<td>8 LB/US gal (960 g/l) (approximately)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.96 (water = 1) (approximately)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Octanol/H2O Coeff.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>500°F (260°C) (minimum)</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>905°F (485°C) (based on similar material)</td>
</tr>
<tr>
<td>LFL</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>0.2 mmHg @ 175°F (79°C)</td>
</tr>
</tbody>
</table>

**Section 10 - Chemical Stability & Reactivity Information**

Stability
- Stable under normal temperatures and pressures.

Incompatibility
- Avoid acids, alkalies, oxidizing agents, reactive halogens, or reactive metals.
- Avoid volatile solvents because contact may cause vapors from hot products to ignite.
- Avoid water because allowing hot product to contact water can cause violent eruptions, splatter hot material, or ignite flammable materials.

Reactivity
- Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Hazardous Decomposition Products
- None under normal temperatures and pressures. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Conditions To Avoid
- Avoid heat, sparks, or flame.

**Section 11 - Toxicological Information**

Toxicity Data

Component Analysis - LD50/LC50
- Lubricating oils, used, residues (129893-17-0)
- Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg (related to Asphalt)
- Dihydrogen monosulfide (7783-06-4)
- Inhalation LC50 Rat 0.701 mg/L 4 h; Inhalation LC50 Rat 0.99 mg/L 1 h

Acute Effects
- Cooled product may irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
Component Carcinogenicity

Lubricating oils, used, residues (129893-17-0)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free, related to Asphalt)
OSHA: Present (select carcinogen, related to Asphalt)
NIOSH: potential occupational carcinogen (roofing asphalt fumes & asphalt-based paints, related to Asphalt)
IARC: Monograph 103 [in preparation]; Supplement 7 [1987] (extracts of steam-refined and air-refined); Monograph 35 [1985] (Group 2B (possibly carcinogenic to humans), related to Asphalt)

Sensitization
Based on best current information, there is no known human sensitization associated with this product.

Mutagenicity
Based on best current information, there is no known mutagenicity associated with this product.

Reproductive Toxicity
Based on best current information, there is no known reproductive toxicity associated with this product.

Teratogenicity
Based on best current information, there is no known teratogenicity associated with this product.

Toxicologically Synergistic Products
Based on best current information, there are no known toxicologically synergistic products associated with this product.

*** Section 12 - Ecological Information ***

Ecotoxicity
No data available for this product.

Component Analysis - Ecotoxicity - Aquatic Toxicity
Dihydrogen monosulfide (7783-06-4)

<table>
<thead>
<tr>
<th>Duration/Test/Species</th>
<th>Concentration/Conditions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50 Lepomis macrochirus</td>
<td>0.0448 mg/L [flow-through]</td>
<td></td>
</tr>
<tr>
<td>96 Hr LC50 Pimephales promelas</td>
<td>0.016 mg/L [flow-through]</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
No information available.

Mobility in Environmental Media
No information available.

Other Adverse Effects
No information available for the product.

*** Section 13 - Disposal Considerations ***

Disposal Instructions
Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

US EPA Waste Number & Descriptions
If discarded, hot product product is considered a RCRA ignitable waste, D001. Cooled product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, they must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

*** Section 14 - Transportation Information ***

Emergency Response Guide Number
Material Safety Data Sheet

Material Name: EcoAddz ID: 82409

DOT
Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt flux)
UN/NA #: UN3257 Hazard Class: 9 Packing Group: III
Required Label(s): CLASS 9
Additional Information: When product temperature is less than 212°F (100°C): Not Regulated.

TDG
Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt flux)
UN/NA #: UN3257 Hazard Class: 9 Packing Group: III
Required Label(s): CLASS 9
Additional Info.: When product temperature is less than 212°F (100°C): Not Regulated.

IATA Information
No Classification Assigned.

IMDG Information
No Classification Assigned.

*** Section 15 - Regulatory Information ***

Volatile Organic Compounds (As regulated)
100 WT%; 8 LB/US gal; 960 g/l (approximately)

SARA Sections 311/312
This product poses the following health hazard(s) as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Hot Product: Fire Hazard

SARA 302/304
Component Analysis
Based on the ingredient(s) listed in SECTION 3, this product does contain "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B:
Dihydrogen monosulfide (7783-06-4) 500 lb TPQ

SARA Section 313
Component Analysis
This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.
Dihydrogen monosulfide (7783-06-4) 1.0 % de minimis concentration

CERCLA
Component Analysis
Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):
Dihydrogen monosulfide (7783-06-4) 100 lb final RQ; 45.4 kg final RQ

TSCA
All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.
Component Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricating oils, used, residues</td>
<td>129893-17-0</td>
<td>Yes</td>
</tr>
<tr>
<td>Dihydrogen monosulfide</td>
<td>7783-06-4</td>
<td>Yes</td>
</tr>
</tbody>
</table>

State Regulations

This product may contain detectable amounts of lead CAS 7439-92-1, nickel CAS 7440-02-0, benzo(a)anthracene CAS 56-55-3, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, benzo(b)fluoranthene CAS 205-99-2, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3, and indeno(1,2,3-cd)pyrene CAS 193-39-5. WARNING: These chemicals are known to the State of California to cause cancer.

This product may contain detectable amounts of lead CAS 7439-92-1. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricating oils, used, residues</td>
<td>129893-17-0</td>
<td>Yes¹</td>
<td>Yes¹</td>
<td>Yes¹</td>
<td>Yes¹</td>
<td>Yes¹</td>
</tr>
<tr>
<td>Dihydrogen monosulfide</td>
<td>7783-06-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

Component Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricating oils, used, residues</td>
<td>129893-17-0</td>
<td>DSL</td>
</tr>
<tr>
<td>Dihydrogen monosulfide</td>
<td>7783-06-4</td>
<td>DSL</td>
</tr>
</tbody>
</table>

Canadian WHMIS Information

Class D2B - Irritating to eyes and skin. Hot Product: Class B2 - Flammable Liquid

Canadian Environmental Protection Act (CEPA)

All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

*** Section 16 - Other Information ***

Label/Other Information

Not available.

Revision Information

Update to Product Name only.

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82409