



Issuing Date 20-Jun-2014

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Version 4

# Safety Data Sheet

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 18-9550-0  
**Product name** Sierra Marine Fogging Oil

**Pure substance/mixture** Mixture

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Sold to the general public?** Yes  
**Recommended Use** Aerosol

**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer

Hicks Oils  
845 N. Hickory Street  
Du Quoin, IL 62832  
TEL: 1-618-542-5431

#### Supplier

Sierra International  
1 Sierra Place  
Litchfield, IL 62056  
Tel: 1-217-324-9487

For further information, please contact

**E-mail address** frode.hammer@seastarsolutions.com

### 1.4. Emergency telephone number

**Emergency Telephone** No information available

| Emergency Telephone - §45 - (EC)1272/2008 |                                                                                 |
|-------------------------------------------|---------------------------------------------------------------------------------|
| Europe                                    | 112                                                                             |
| Austria                                   | +43 1 406 43 43                                                                 |
| Belgium                                   | 070 245 245                                                                     |
| Denmark                                   | Giftlinjen 82 12 12 12                                                          |
| Finland                                   | 09 471977                                                                       |
| France                                    | + 33 (0) 1 45 42 59 59                                                          |
| Germany                                   | 06131/19240 Mainz<br>030/19240 Berlin<br>06841/19240 Homburg<br>0228/19240 Bonn |
| Ireland                                   | 01 8092566 or 01 8379964                                                        |
| Italy                                     | 118                                                                             |
| Netherlands                               | Nationaal Vergiftigingen Informatie Centrum 030-274 8888                        |
| Norway                                    | Giftinformasjonen -22591300                                                     |
| Portugal                                  | CIAV 808 250 143                                                                |
| Spain                                     | + 34 91 562 04 20                                                               |
| Sweden                                    | 112<br>08-331231                                                                |
| United Kingdom                            | 08454 24 24 24<br>111                                                           |

## Section 2: HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture***Regulation (EC) No 1272/2008***FLAMMABLE AEROSOLS**

Category 1 - (H222) ; (H229)

**2.2. Label elements****Product identifier****Signal word**

DANGER

**Hazard statements**

H222 - Extremely flammable aerosol

H229 - Pressurized container: May burst if heated

**Precautionary Statements - EU (§28, 1272/2008)**

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P211 - Do not spray on an open flame or other ignition source

P251 - Pressurized container: Do not pierce or burn, even after use

**2.3. Other hazards**

Other hazards

May be harmful in contact with skin

No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

| Chemical name                                        | EC No     | CAS-No     | Weight % | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|------------------------------------------------------|-----------|------------|----------|-----------------------------------------------------------------|---------------------------|
| Petroleum distillates, hydrotreated heavy naphthenic | 265-155-0 | 64742-52-5 | 68       | Carc. 1B (H350)                                                 | No data available         |
| Butane                                               | 203-448-7 | 106-97-8   | 22       | Flam. Gas 1 (H220)<br>Press. Gas                                | No data available         |
| Propane                                              | 200-827-9 | 74-98-6    | 8        | Flam. Gas 1 (H220)<br>Press. Gas                                | No data available         |

**Full text of H- and EUH-phrases: see section 16**

| Chemical name                                        | CAS-No     | SVHC candidates |
|------------------------------------------------------|------------|-----------------|
| Petroleum distillates, hydrotreated heavy naphthenic | 64742-52-5 |                 |
| Butane                                               | 106-97-8   |                 |
| Propane                                              | 74-98-6    |                 |

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                     |                                                                                                                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 symptoms appear.                                                                                                                  |
| <b>Skin contact</b> | Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention. Get medical attention if irritation develops and persists. |
| <b>Eye contact</b>  | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.                                                                                                                                                        |
| <b>Ingestion</b>    | Clean mouth with water and afterwards drink plenty of water.                                                                                                                                                                                                                       |

### 4.2. Most important symptoms and effects, both acute and delayed

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

### 4.3. Indication of any immediate medical attention and special treatment needed

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to Physician</b> | Treat symptomatically. |
|---------------------------|------------------------|

## Section 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable extinguishing media**

Foam. Water spray or fog. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

|                    |                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Small Fires</b> | Always use personal safety equipment. Follow appropriate personal safety procedures, and extinguishing media. |
| <b>Large Fires</b> | Contact emergency personnel.                                                                                  |

#### **Unsuitable extinguishing media**

No information available

### 5.2. Special hazards arising from the substance or mixture

Containers may explode when heated Overexposure to decomposition products may cause a health hazard.

### 5.3. Advice for firefighters

Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. If water is used, fog nozzles preferred. Wear goggles and self-contained breathing apparatus.

## Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

#### **Personal protection**

Ensure adequate ventilation. Avoid contact with eyes.

#### **For emergency responders**

Ventilate the area. Remove all sources of ignition. Avoid breathing vapors or mists. Clean up area with absorbent material and place in closed containers for disposal.

### 6.2. Environmental precautions

Collect spillage.

### **6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically and collect in suitable container for disposal.

### **6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

## **Section 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Ensure adequate ventilation. Avoid contact with eyes. Keep away from open flames, hot surfaces and sources of ignition. Do not stick pin or any other sharp object into opening on top of can.

#### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Storage Conditions**

Do not store above 49C.

Do not puncture or incinerate cans.

Do not stick pin, nail or any other sharp object into opening on top of can.

### **7.3. Specific end use(s)**

#### **Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

## **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

| Chemical name      | European Union | United Kingdom                                 | France                                      | Spain  | Germany                                                                                                            |
|--------------------|----------------|------------------------------------------------|---------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------|
| Butane<br>106-97-8 | -              | -                                              | TWA: 800 ppm<br>TWA: 1900 mg/m <sup>3</sup> | -      | TWA: 1000 ppm<br>TWA: 2400 mg/m <sup>3</sup><br>Ceiling / Peak: 4000 ppm<br>Ceiling / Peak: 9600 mg/m <sup>3</sup> |
| Propane<br>74-98-6 | -              | -                                              | -                                           | -      | TWA: 1000 ppm<br>TWA: 1800 mg/m <sup>3</sup><br>Ceiling / Peak: 4000 ppm<br>Ceiling / Peak: 7200 mg/m <sup>3</sup> |
| Chemical name      | Austria        | Switzerland                                    | Poland                                      | Norway | Ireland                                                                                                            |
| Butane<br>106-97-8 | -              | STEL: 3200 ppm<br>STEL: 7200 mg/m <sup>3</sup> | -                                           | -      | -                                                                                                                  |
| Propane<br>74-98-6 | -              | STEL: 4000 ppm<br>STEL: 7200 mg/m <sup>3</sup> | -                                           | -      | -                                                                                                                  |

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### **Personal protective equipment**

**Eye/face Protection**

Avoid contact with eyes. Wear safety glasses if contact is likely.

**Hand protection**

Solvent resistant gloves required for prolonged or repeated contact.

**Skin and body protection**

Solvent-resistant apron and boots.

**Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Environmental exposure controls** No information available.

## **Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1. Information on basic physical and chemical properties

|                       |                          |                       |                          |
|-----------------------|--------------------------|-----------------------|--------------------------|
| <b>Physical state</b> | Aerosol                  | <b>Odor</b>           | No information available |
| <b>Appearance</b>     | No information available | <b>Odor threshold</b> | No information available |
| <b>Color</b>          | No information available |                       |                          |

#### Property

#### Values

#### Remarks • Method

|                                     |                          |                          |
|-------------------------------------|--------------------------|--------------------------|
| <b>pH</b>                           |                          | No information available |
| <b>Melting point/freezing point</b> |                          | No information available |
| <b>Boiling Point/Range</b>          | -44 - 500 °F             | No information available |
| <b>Flash point</b>                  | -104.4 °C / -156 °F      | No information available |
| <b>Evaporation rate</b>             | Slower than ether        | No information available |
| <b>Flammability (solid, gas)</b>    |                          | No information available |
| <b>Flammability Limit in Air</b>    |                          |                          |
| Upper flammability limit:           |                          | 9.5                      |
| Lower flammability limit:           |                          | 1.9                      |
| <b>Vapor pressure</b>               |                          | No information available |
| <b>Vapor density</b>                | Heavier than air         | No information available |
| <b>Specific gravity</b>             | 0.76                     | No information available |
| <b>Water solubility</b>             | negligible               | No information available |
| <b>Solubility in other solvents</b> |                          | No information available |
| <b>Partition coefficient</b>        |                          | No information available |
| <b>Autoignition temperature</b>     |                          | No information available |
| <b>Decomposition temperature</b>    |                          | No information available |
| <b>Kinematic viscosity</b>          |                          | No information available |
| <b>Dynamic viscosity</b>            |                          | No information available |
| <b>Explosive properties</b>         | No information available |                          |
| <b>Oxidizing properties</b>         | No information available |                          |

### 9.2. Other information

|                         |                          |
|-------------------------|--------------------------|
| <b>Softening point</b>  | No information available |
| <b>Molecular weight</b> | No information available |
| <b>VOC Content</b>      | No information available |
| <b>Density</b>          | No information available |
| <b>Bulk density</b>     | No information available |

## **Section 10: STABILITY AND REACTIVITY**

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable.

Explosion data

Sensitivity to Mechanical Impact None.  
Sensitivity to Static Discharge None.

**10.3. Possibility of hazardous reactions**

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Possibility of Hazardous Reactions**

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

**10.4. Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials**

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

**Acute toxicity**

**Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

|                     |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Respiratory irritation, headache, nausea, fatigue, drowsiness, impaired coordination.                     |
| <b>Eye contact</b>  | Avoid contact with eyes. Contact with eyes may cause irritation.                                          |
| <b>Skin contact</b> | Repeated exposure may cause skin dryness or cracking. Prolonged contact may cause redness and irritation. |
| <b>Ingestion</b>    | Do NOT taste or swallow.                                                                                  |

**Unknown Acute Toxicity** 2% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

|                        |          |
|------------------------|----------|
| <b>ATEmix (oral)</b>   | 7,353.00 |
| <b>ATEmix (dermal)</b> | 2,941.00 |

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50                    |
|---------------|-----------|-------------|------------------------------------|
| Butane        |           |             | = 658 g/m <sup>3</sup> ( Rat ) 4 h |
| Propane       |           |             | = 658 mg/L ( Rat ) 4 h             |

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

| Chemical name | European Union |
|---------------|----------------|
|---------------|----------------|

|                                                      |          |
|------------------------------------------------------|----------|
| Petroleum distillates, hydrotreated heavy naphthenic | Carc. 1B |
| Butane                                               | Carc. 1A |
| Propane                                              | Carc. 1A |

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

32% of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical name                                        | Algae/aquatic plants | Fish                                     | Crustacea                          |
|------------------------------------------------------|----------------------|------------------------------------------|------------------------------------|
| Petroleum distillates, hydrotreated heavy naphthenic | -                    | 5000: 96 h Oncorhynchus mykiss mg/L LC50 | 1000: 48 h Daphnia magna mg/L EC50 |

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Butane        | <=2.8                 |
| Propane       | <=2.8                 |

### 12.4. Mobility in soil

#### **Mobility in soil**

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste from residues/unused products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Improper disposal or reuse of this container may be dangerous and illegal.

## Section 14: TRANSPORT INFORMATION

**IMDG/IMO**

|                                                                               |                           |
|-------------------------------------------------------------------------------|---------------------------|
| 14.1 UN-No                                                                    | 1950                      |
| 14.2 Proper shipping name                                                     | Consumer commodity, ORM-D |
| 14.3 Hazard Class                                                             | Not regulated             |
| 14.4 Packing group                                                            | Not regulated             |
| 14.5 Marine pollutant                                                         | Not Applicable            |
| 14.6 Special Provisions                                                       | None                      |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available  |

**RID**

|                           |                           |
|---------------------------|---------------------------|
| 14.1 UN-No                | Not regulated             |
| 14.2 Proper shipping name | Consumer commodity, ORM-D |
| 14.3 Hazard Class         | Not regulated             |
| 14.4 Packing group        | Not Applicable            |
| 14.5 Environmental Hazard | Not Applicable            |
| 14.6 Special Provisions   | None                      |

**ADR**

|                           |                |
|---------------------------|----------------|
| 14.1 UN-No                | Not regulated  |
| 14.2 Proper shipping name | Not regulated  |
| 14.3 Hazard Class         | Not regulated  |
| 14.4 Packing group        | Not regulated  |
| 14.5 Environmental Hazard | Not Applicable |
| 14.6 Special Provisions   | None           |

**ICAO**

|                           |                |
|---------------------------|----------------|
| 14.1 UN-No                | Not regulated  |
| 14.2 Proper shipping name | Not regulated  |
| 14.3 Hazard Class         | Not regulated  |
| 14.4 Packing group        | Not regulated  |
| 14.5 Environmental Hazard | Not Applicable |
| 14.6 Special Provisions   | None           |

**IATA**

|                           |                               |
|---------------------------|-------------------------------|
| 14.1 UN-No                | UN1950                        |
| 14.2 Proper shipping name | Aerosols, flammable (Mixture) |
| 14.3 Hazard Class         | Not regulated                 |
| 14.4 Packing group        | Not regulated                 |
| 14.5 Environmental Hazard | Not Applicable                |
| 14.6 Special Provisions   | None                          |

**Section 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

|               |                 |
|---------------|-----------------|
| TSCA          | Does not comply |
| DSL/NDL       | Does not comply |
| EINECS/ELINCS | Does not comply |
| ENCS          | Does not comply |
| IECSC         | Does not comply |

|       |                 |
|-------|-----------------|
| KECL  | Does not comply |
| PICCS | Does not comply |
| AICS  | Does not comply |

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

No information available

**Section 16: OTHER INFORMATION****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H220 - Extremely flammable gas

H350 - May cause cancer if swallowed

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         |      |                                  |

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Reason Note SDS sections updated, 2, 3, 16.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet