

# TALLOW

TLO

## CAUTIONARY RESPONSE INFORMATION

|  |   |   |             |           |
|--|---|---|-------------|-----------|
| <b>Common Synonyms</b>   |   | Oily liquid                                   | Dark yellow | Waxy odor |
| Edible tallow<br>Inedible tallow<br>Tallow oil                               |   | Floats on water. Freezing point is 35°F-45°F. |             |           |
| Call fire department.<br>Notify local health and pollution control agencies. |   |   |             |           |
| <b>Fire</b>  | Combustible.<br>Extinguish with foam, dry chemical, or carbon dioxide.<br>Water may be ineffective on fire.<br>Cool exposed containers with water.  |   |             |           |
| <b>Exposure</b>  | Not harmful.  |   |             |           |
| <b>Water Pollution</b>   | Effect of low concentrations on aquatic life is unknown.<br>Fouling to shoreline.<br>May be dangerous if it enters water intakes.<br>Notify local health and wildlife officials.<br>Notify operators of nearby water intakes. |   |             |           |

### 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Contain  
Collection Systems: Skim  
Chemical and Physical Treatment:  
Absorb  
Clean shore line  
Salvage waterfowl

### 2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 34; Ester  
2.2 **Formula:** Not pertinent  
2.3 **IMO/UN Designation:** Not listed  
2.4 **DOT ID No.:** Not listed  
2.5 **CAS Registry No.:** Currently not available  
2.6 **NAERG Guide No.:** Not listed  
2.7 **Standard Industrial Trade Classification:** 41130

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Goggles or face shield; protective clothing, if exposure to hot liquid is possible.  
3.2 **Symptoms Following Exposure:** Hot liquid can burn eyes and skin.  
3.3 **Treatment of Exposure:** Treat burns caused by hot liquid.  
3.4 **TLV-TWA:** Not listed.  
3.5 **TLV-STEL:** Not listed.  
3.6 **TLV-Ceiling:** Not listed.  
3.7 **Toxicity by Ingestion:** Grade 0; LD<sub>50</sub> above 15 g/kg  
3.8 **Toxicity by Inhalation:** Currently not available.  
3.9 **Chronic Toxicity:** None  
3.10 **Vapor (Gas) Irritant Characteristics:** Non-volatile  
3.11 **Liquid or Solid Characteristics:** None  
3.12 **Odor Threshold:** Currently not available  
3.13 **IDLH Value:** Not listed.  
3.14 **OSHA PEL-TWA:** Not listed.  
3.15 **OSHA PEL-STEL:** Not listed.  
3.16 **OSHA PEL-Ceiling:** Not listed.  
3.17 **EPA AEGL:** Not listed

### 4. FIRE HAZARDS

- 4.1 **Flash Point:** 509°F C.C.  
4.2 **Flammable Limits in Air:** Not pertinent  
4.3 **Fire Extinguishing Agents:** Water fog, carbon dioxide, or dry chemical  
4.4 **Fire Extinguishing Agents Not to Be Used:** Water or foam may cause frothing.  
4.5 **Special Hazards of Combustion Products:** Not pertinent  
4.6 **Behavior in Fire:** Not pertinent  
4.7 **Auto Ignition Temperature:** Currently not available  
4.8 **Electrical Hazards:** Not pertinent  
4.9 **Burning Rate:** Currently not available  
4.10 **Adiabatic Flame Temperature:** Currently not available  
4.11 **Stoichiometric Air to Fuel Ratio:** Not pertinent.  
4.12 **Flame Temperature:** Currently not available  
4.13 **Combustion Molar Ratio (Reactant to Product):** Not pertinent.  
4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

### 5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** No reaction  
5.2 **Reactivity with Common Materials:** No reaction  
5.3 **Stability During Transport:** Stable  
5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent  
5.5 **Polymerization:** Not pertinent  
5.6 **Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:** Currently not available  
6.2 **Waterfowl Toxicity:** Currently not available  
6.3 **Biological Oxygen Demand (BOD):** 152%, 5 days  
6.4 **Food Chain Concentration Potential:** None  
6.5 **GESAMP Hazard Profile:**  
Bioaccumulation: 0  
Damage to living resources: 0/BOD  
Human Oral hazard: 0  
Human Contact hazard: 0  
Reduction of amenities: XX

### 7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Acidless; buffing; industrial fancy; edible; inedible  
7.2 **Storage Temperature:** Ambient  
7.3 **Inert Atmosphere:** No requirement  
7.4 **Venting:** Open (flame arrester)  
7.5 **IMO Pollution Category:** D  
7.6 **Ship Type:** Data not available  
7.7 **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Not listed  
8.2 **49 CFR Class:** Not pertinent  
8.3 **49 CFR Package Group:** Not listed.  
8.4 **Marine Pollutant:** No  
8.5 **NFPA Hazard Classification:**
- | Category                  | Classification |
|---------------------------|----------------|
| Health Hazard (Blue)..... | 0              |
| Flammability (Red).....   | 1              |
| Instability (Yellow)..... | 0              |
- 8.6 **EPA Reportable Quantity:** Not listed.  
8.7 **EPA Pollution Category:** Not listed.  
8.8 **RCRA Waste Number:** Not listed  
8.9 **EPA FWPCA List:** Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid  
9.2 **Molecular Weight:** Not pertinent  
9.3 **Boiling Point at 1 atm:** Very high  
9.4 **Freezing Point:** 35–45°F = 2–7°C = 275–280°K  
9.5 **Critical Temperature:** Not pertinent  
9.6 **Critical Pressure:** Not pertinent  
9.7 **Specific Gravity:** (est.) 0.87 at 80°C (liquid)  
9.8 **Liquid Surface Tension:** Currently not available  
9.9 **Liquid Water Interfacial Tension:** Currently not available  
9.10 **Vapor (Gas) Specific Gravity:** Not pertinent  
9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent  
9.12 **Latent Heat of Vaporization:** Not pertinent  
9.13 **Heat of Combustion:** (est.) –18,000 Btu/lb = –10,000 cal/g = –420 X 10<sup>5</sup> J/kg  
9.14 **Heat of Decomposition:** Not pertinent  
9.15 **Heat of Solution:** Not pertinent  
9.16 **Heat of Polymerization:** Not pertinent  
9.17 **Heat of Fusion:** Currently not available  
9.18 **Limiting Value:** Currently not available  
9.19 **Reid Vapor Pressure:** 0.1 psia

### NOTES

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| 9.20<br>SATURATED LIQUID DENSITY |                       | 9.21<br>LIQUID HEAT CAPACITY |                                     | 9.22<br>LIQUID THERMAL CONDUCTIVITY |   | 9.23<br>LIQUID VISCOSITY   |            |
|----------------------------------|-----------------------|------------------------------|-------------------------------------|-------------------------------------|---|----------------------------|------------|
| Temperature<br>(degrees F)       | Pounds per cubic foot | Temperature<br>(degrees F)   | British thermal unit per<br>pound-F | Temperature<br>(degrees F)          | British thermal unit inch<br>per hour-square foot-F | Temperature<br>(degrees F) | Centipoise |
| 175                              | 53.060                | 190                          | 0.478                               | 64                                  | 1.040   | 212                        | 16.500     |
| 180                              | 53.060                | 195                          | 0.478                               | 66                                  | 1.040   |                            |            |
| 185                              | 53.060                | 200                          | 0.478                               | 68                                  | 1.040   |                            |            |
| 190                              | 53.060                | 205                          | 0.478                               | 70                                  | 1.040   |                            |            |
| 195                              | 53.060                | 210                          | 0.478                               | 72                                  | 1.040   |                            |            |
| 200                              | 53.060                | 215                          | 0.478                               | 74                                  | 1.040   |                            |            |
| 205                              | 53.060                | 220                          | 0.478                               | 76                                  | 1.040   |                            |            |
| 210                              | 53.060                | 225                          | 0.478                               | 78                                  | 1.040   |                            |            |
| 215                              | 53.060                | 230                          | 0.478                               | 80                                  | 1.040   |                            |            |
| 220                              | 53.060                | 235                          | 0.478                               | 82                                  | 1.040   |                            |            |
| 225                              | 53.060                | 240                          | 0.478                               | 84                                  | 1.040   |                            |            |
| 230                              | 53.060                | 245                          | 0.478                               | 86                                  | 1.040   |                            |            |
| 235                              | 53.060                | 250                          | 0.478                               | 88                                  | 1.040   |                            |            |
| 240                              | 53.060                | 255                          | 0.478                               | 90                                  | 1.040   |                            |            |
|                                  |                       | 260                          | 0.478                               | 92                                  | 1.040   |                            |            |
|                                  |                       |                              |                                     | 94                                  | 1.040   |                            |            |
|                                  |                       |                              |                                     | 96                                  | 1.040   |                            |            |
|                                  |                       |                              |                                     | 98                                  | 1.040   |                            |            |

| 9.24<br>SOLUBILITY IN WATER |  | 9.25<br>SATURATED VAPOR PRESSURE |  | 9.26<br>SATURATED VAPOR DENSITY |  | 9.27<br>IDEAL GAS HEAT CAPACITY |  |
|-----------------------------|--|----------------------------------|--|---------------------------------|--|---------------------------------|--|
| Temperature<br>(degrees F)  | Pounds per 100 pounds<br>of water              | Temperature<br>(degrees F)       | Pounds per square inch                                       | Temperature<br>(degrees F)      | Pounds per cubic foot  | Temperature<br>(degrees F)      | British thermal unit per<br>pound-F                          |
|                             | I<br>N<br>S<br>O<br>L<br>U<br>B<br>I<br>L<br>E |                                  | N<br>O<br>T<br><br>P<br>E<br>R<br>T<br>I<br>N<br>E<br>N<br>T |                                 | N<br>O<br>T<br><br>P<br>E<br>R<br>T<br>I<br>N<br>E<br>N<br>T |                                 | N<br>O<br>T<br><br>P<br>E<br>R<br>T<br>I<br>N<br>E<br>N<br>T |