**Identification**

- **Product Identifier**
  - **Trade Name:** APPF Hydraulic Pulse Fluid
  - **Product Number:** P/N 998-735-0("X")
  - **Relevant identified uses of the substance or mixture and uses advised against:**
  - **Product Description:** No further relevant information available.

- **Details of the Supplier of the Safety Data Sheet:**
  - **Manufacturer/Supplier:**
    - AIMCO
    - 10000 SE Pine Street
    - Portland, OR  97216
    - sales@aimco-global.com
    - www.aimco-global.com
    - Phone:  +1 503 254 6600
    - Business Hours 7am – 5pm Pacific Time
  - **Emergency telephone number:** +1 503 254-6600

**Hazard(s) Identification**

- **Classification of the substance or mixture:**
  - Aquatic Acute 3 H402 Harmful to aquatic life.
  - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements:**
  - **Hazard pictograms:** Non-Regulated Material
  - **Signal word:** Non-Regulated Material
  - **Hazard statements:**
    - H402 Harmful to aquatic life.
    - H412 Harmful to aquatic life with long lasting effects.
  - **Precautionary statements:**
    - P273 Avoid release to the environment.
    - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Unknown acute toxicity:**
    - This value refers to knowledge of known, established toxicological or ecotoxicological values.
    - 0 % of the mixture consists of component(s) of unknown toxicity.
  - **Classification system:** NFPA/HMIS Definitions:  0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 1
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 1
    - Physical Hazard = 0
  - **Hazard(s) not otherwise classified (HNOC):** None known

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/19/2019
Reviewed on 07/19/2019

Trade Name: APPF Hydraulic Pulse Fluid

3 Composition/Information on Ingredients

- **Chemical characterization:** Mixtures
- **Description:** Non-Regulated Material

### Dangerous Components:

- CAS: 128-37-0 butylated hydroxytoluene
- RTECS: GO 7875000 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302 ≤2.5%

### Additional information:
The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures**
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** If skin irritation occurs, consult a doctor.
  - **After eye contact:**
    - If eye irritation occurs, consult a doctor.
    - Rinse opened eye for several minutes under running water.
  - **After swallowing:** If swallowed and symptoms occur, consult a doctor.

- **Information for doctor**
  - **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed:**
    - No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
  - **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
  - **For safety reasons unsuitable extinguishing agents:** No further relevant information.

- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
  - **Special protective equipment for firefighters:**
    - As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:**
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose of the collected material according to regulations.

- **Reference to other sections:**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### Protective Action Criteria for Chemicals

- **PAC-1:**
  - None of the ingredients are listed.

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Trade Name: APPF Hydraulic Pulse Fluid

7 Handling and Storage

· Handling
  · Precautions for safe handling: No special precautions are necessary if used correctly.
  · Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities
  · Storage
    · Requirements to be met by storerooms and receptacles: No special requirements.
    · Information about storage in one common storage facility: Not required.
    · Further information about storage conditions: None.
    · Specific end use(s): No further relevant information available.

8 Exposure Controls/Personal Protection

· Additional information about design of technical systems: No further data; see section 7.

· Control parameters:

<table>
<thead>
<tr>
<th>Components with occupational exposure limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>128-37-0 butylated hydroxytoluene</td>
</tr>
<tr>
<td>REL Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>TLV Long-term value: 2* mg/m³</td>
</tr>
<tr>
<td>*as inhalable fraction and vapor</td>
</tr>
</tbody>
</table>

· Additional information: The lists that were valid during the creation of this SDS were used as basis.

· Exposure controls:
  · Personal protective equipment
    · General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
      Wash hands before breaks and at the end of work.
    · Breathing equipment: Not required.
    · Protection of hands: Not required.
    · Material of gloves: Not applicable.
    · Penetration time of glove material: Not applicable.
  · Eye protection:

    Goggles recommended during refilling.

· Limitation and supervision of exposure into the environment:
  Keep away from drains, surface and ground waters.
  Avoid release into the environment.
9 Physical and Chemical Properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Liquid
      - Color: Light yellow
    - Odor: Slight
    - Odor threshold: Not determined.
    - pH-value: Not applicable.
  - Change in condition
    - Melting point/Melting range: -30 °C (-22 °F)
    - Boiling point/Boiling range: Not determined.
    - Flash point: 310 °C (590 °F)
  - Flammability (solid, gaseous): Not applicable.
  - Ignition temperature: Not applicable
  - Decomposition temperature: Not determined.
  - Auto igniting: Product is not self-igniting.
  - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Vapor pressure: Not determined.
  - Density @ 20 °C (68 °F): 0.921 g/cm³ (7.6857 lbs/gal)
  - Relative density: Not determined.
  - Vapor density: Not determined.
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with:
    - Water: Not miscible or difficult to mix.
  - Partition coefficient (n-octanol/water): Not determined.
  - Viscosity:
    - Dynamic: Not determined.
    - Kinematic: Not determined.
  - Solvent content:
    - Organic solvents: 0.5 %
    - VOC content: 0.50 %
    - Solids content: 0.5 %
  - Other information: No further relevant information available.

10 Stability and Reactivity

- Reactivity: No further relevant information available.
- Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.

(Contd. on page 5)
Trade Name: APPF Hydraulic Pulse Fluid

- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological Information

- **Information on toxicological effects:**
  - **Acute toxicity:**
    - **LD/LC50 values that are relevant for classification:**
      - 128-37-0 butylated hydroxytoluene
        - Oral LD50: 890 mg/kg (Rat)
        - Dermal LD50: >2,000 mg/kg (Rat)
  - **Primary irritant effect:**
    - **On the skin:** No irritating effect.
    - **On the eye:** No irritating effect.
  - **Additional toxicological information:**
    - **Carcinogenic categories:**
      - IARC (International Agency for Research on Cancer):
        - All components have the value 3.
      - NTP (National Toxicology Program):
        - None of the ingredients are listed.
      - OSHA-Ca (Occupational Safety & Health Administration):
        - None of the ingredients are listed.

## 12 Ecological Information

- **Toxicity:**
  - **Aquatic toxicity:**
    - Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
  - 128-37-0 butylated hydroxytoluene
    - EC50: 0.42 mg/l (Algae - Selenastrum capricornutum)
    - 0.84 mg/l (Daphnia)
  - **Persistence and degradability:** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential:** No further relevant information available.
    - **Mobility in soil:** No further relevant information available.
  - **Ecotoxicological effects:**
    - **Remark:** Harmful to fish
  - **Additional ecological information:**
  - **General notes:**
    - Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
    - Harmful to aquatic organisms
  - **Results of PBT and vPvB assessment:**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects:** No further relevant information available.

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Trade Name: APPF Hydraulic Pulse Fluid

13 Disposal Considerations

- **Waste treatment methods**
  - **Recommendation:**
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.

- **Uncleaned packaging**
  - **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**
  - **DOT, ADR/ADN, IMDG, IATA:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA**
- **UN proper shipping name:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA**
- **Transport hazard class(es):** Non-Regulated Material
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA**
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
  - **SARA (Superfund Amendments and Reauthorization):**
    - **Section 355 (extremely hazardous substances):** None of the ingredients are listed.
  - **Section 313 (Specific toxic chemical listings):** None of the ingredients are listed.
  - **TSCA (Toxic Substances Control Act):** All components have the value ACTIVE.
  - **Hazardous Air Pollutants** None of the ingredients are listed.
  - **California Proposition 65:**
    - **Chemicals known to cause cancer:** None of the ingredients are listed.
    - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients are listed.
    - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients are listed.
    - **Chemicals known to cause developmental toxicity:** None of the ingredients are listed.

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Trade Name: APPF Hydraulic Pulse Fluid

- **New Jersey Right-to-Know List:**
  All ingredients are listed.

- **New Jersey Special Hazardous Substance List:**
  None of the ingredients are listed.

- **Pennsylvania Right-to-Know List:**
  All ingredients are listed.

- **Pennsylvania Special Hazardous Substance List:**
  None of the ingredients are listed.

- **Carcinogenic categories:**
  - **EPA (Environmental Protection Agency):**
    None of the ingredients are listed.
  - **TLV (Threshold Limit Value established by ACGIH):**
    All components have the value A4.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health):**
    None of the ingredients are listed.

- **GHS label elements**
  - The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms:** Non-Regulated Material
  - **Signal word:** Non-Regulated Material
  - **Hazard statements:**
    H402 Harmful to aquatic life.
    H412 Harmful to aquatic life with long lasting effects.
  - **Precautionary statements:**
    P273 Avoid release to the environment.
    P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**
  None of the ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of last revision/ revision number:** 07/19/2019 / 1

- **Abbreviations and acronyms:**
  - ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
  - ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic

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Safety Data Sheet (SDS)
OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/19/2019 Reviewed on 07/19/2019

Trade Name: APPF Hydraulic Pulse Fluid

vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.

SDS created by MSDS Authoring Services   www.msdsauthoring.com   +1-877-204-9106