SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: [Ser^{140}]-PLP_{139-151}/CFA Emulsion, [Ser^{140}]-PLP_{139-151}/CFA Emulsion PTX (emulsion syringe only) PLP_{139-151} (native)/CFA Emulsion
Catalog number: EK-0120, EK-2120 (emulsion syringe only), EK-0230
Brand: Hooke

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

Identified uses: Immunization of laboratory animals

1.3 Details of the supplier of the safety data sheet

Company: Hooke Laboratories, Inc.
439 South Union Street
Lawrence, MA 01843, USA

Technical information: +1 617 475 5114
Technical support: support@hookelabs.com

1.4 Emergency telephone number

Emergency telephone: +1 781 346 2302

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

H334 – Respiratory sensitization (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram:

Signal word: Danger

Hazard statement(s)

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P285 In case of inadequate ventilation wear respiratory protection.
P304+P341  IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342+P311  If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P501 Dispose of contents/ container to an approved waste disposal plant.

Sensitizing components

Mycobacterium Tuberculosis H37 Ra; heat-killed, lyophilized cells. May produce an allergic reaction.

2.3  Hazards not otherwise classified (HNOC) or not covered by GHS

No data available.

Caution: The chemical, physical and toxicological properties of this product and the materials used to manufacture it have not been thoroughly investigated. Exercise due care. Proper personal protective equipment is required when handling this product.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1  Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>8042-47-5</td>
<td>50%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>46.0-46.3%</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>3.6%</td>
</tr>
<tr>
<td>Potassium phosphate dibasic</td>
<td>7758-11-4</td>
<td>0-2%</td>
</tr>
<tr>
<td>Myelin Oligodendrocyte Glycoprotein peptide fragment (35-55) rat, mouse</td>
<td>163913-87-9</td>
<td>0.1%</td>
</tr>
<tr>
<td>Acetic acid</td>
<td>64-19-7</td>
<td>&lt;0.1%</td>
</tr>
<tr>
<td>Potassium phosphate monobasic</td>
<td>7778-77-0</td>
<td>&lt;0.1%</td>
</tr>
<tr>
<td>PLP139-151</td>
<td>122018-58-0</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

3.2  Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat-killed Mycobacterium Tuberculosis H37 Ra lyophilized powder</td>
<td>Resp. Sens. 1; H334</td>
<td>&gt;=0.1% - &lt;5%</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

4.1  Description of first aid measures

General advice:
Consult a physician. Show this safety data sheet to the doctor in attendance.

Accidental injection:
Consult a physician. Incision at the site of injection and flushing with physiological solution may help reduce development of local inflammation.

Oral Exposure:
Consult a physician. If person is conscious, rinse mouth with water.
Inhaled exposure:
Remove to fresh air. If breathing is difficult, consult a physician.

Skin contact:
Wash with soap and flush with copious amounts of water. Remove contaminated clothing or shoes.

Eye exposure:
Flush with copious amounts of water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Consult a physician.

4.2 **Most important symptoms and effects, both acute and delayed**
Accidental injection will cause local inflammation which may persist for several months.

4.3 **Indication of any immediate medical attention and special treatment needed**
Incision at the site of injection and flushing with physiological solution may help reduce development of local inflammation.

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**SECTION 5 – FIRE FIGHTING MEASURES**

5.1 **Extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 **Special hazards arising from the substance or mixture**
Nature of decomposition products not known.
Carbon oxides

5.3 **Advice for firefighters**
Emits toxic fumes under fire conditions. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

5.4 **Further information**
No data available

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**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 **Environmental precautions**
Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 **Reference to other sections**
For disposal see section 13.
SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear proper personal protection equipment. Avoid inhalation, contact with eyes, skin, or clothing. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: 2 - 4 °C.

Do not freeze.
Storage class (TRGS 510): 12: Non Combustible Liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters:
Contains no substances with occupational exposure limit values.
Hazardous components without workplace control parameters

8.2 Exposure controls

Appropriate engineering controls:
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:
Eye/face protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use
Body Protection
Lab coat.
Respiratory protection
No special protection needed.
Control of environmental exposure
Do not let product enter drains.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance form liquid
b) Odor no data available
c) Odor threshold no data available
d) pH no data available
e) Melting point/freezing point no data available
f) Initial boiling point and boiling range no data available
g) Flash point no data available
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapor pressure no data available
l) Vapor density no data available
m) Relative density no data available
n) Water solubility no data available
o) Partition coefficient: noctanol/water no data available
p) Auto-ignition temperature no data available
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

White, thick, oily liquid.
Partly soluble in water.

9.2 Other safety information

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity
No data available.

10.2 Chemical stability
Stable under recommended storage conditions. Hazardous polymerization will not occur.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
Strong oxidizing agents.
10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Carbon oxides
In the event of fire: see section 5

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
No data available.
Skin corrosion/irritation
No data available.
Serious eye damage/eye irritation
No data available.
Respiratory or skin sensitization
No data available.
Germ cell mutagenicity
No data available.
Carcinogenicity
IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
No data available.
Specific target organ toxicity - single exposure
No data available.
Specific target organ toxicity - repeated exposure
No data available.
Aspiration hazard
No data available.
Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.
12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects
No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Place used syringes and needles in approved sharps container.

Contact an approved biohazard waste disposal service to dispose of this material. Incineration is recommended.

Observe all federal, state, and local environmental regulations when disposing of this product.

SECTION 14 - TRANSPORT INFORMATION

This product is not a hazardous material for any transportation purpose.

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
Mineral oil, CAS-No. 8020-83-5, Revision Date 1989-08-11
Mannide monooleate 9049-98-3

New Jersey Right To Know Components
Mineral oil, CAS-No. 8020-83-5, Revision Date 1989-08-11
Mannide monooleate 9049-98-3

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 - OTHER INFORMATION

Further information

For research use only. Not for human consumption.

To the best of our knowledge, this information is correct. However, it does not represent any guarantee of the properties of the product, it does not purport to be all inclusive, and it should be used only as a guide. Hooke
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Preparation information

Prepared by Hooke Laboratories. Inc.

- End of Safety Data Sheet -