SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name: Recombinant Chikungunya Virus-like particle,
IUPAC name: -
Product number: CHIKV-VLP
CAS number:

Company: The Native Antigen Company Ltd.
Cherwell Innovation Centre
Unit 77, Heyford Park
Upper Heyford
Oxfordshire, OX25 5HD
United Kingdom

Telephone: +44 (0)1869 238 067
Fax: +44 (0)1869 238 001
Emergency Phone number: +44 (0)1869 238 067
E-mail address: contact@thenativeantigencompany.com

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chikungunya Virus-like particles are expressed recombinantly in a mammalian cell expression system.
Sample is of biological origin and is presented as a liquid in a plastic vial. Each vial contains no more than 1000µg.

Additional components present: 20mM Tris-HCl, pH7.5, 125mM NaCl; may contain traces of sucrose

4. FIRST AID MEASURES

If inhaled: Remove person to fresh air, seek medical advice if breathing becomes difficult.
In case of skin contact: Wash off with soap and water.
In case of eye contact: Rinse at eyewash station.
If swallowed: No treatment required

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**  
None required.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**  
Wear gloves.

**Environmental precautions**  
Prevent further leakage or spillage if safe to do so.

**Methods and materials for containment and cleaning up**  
Pick up using absorbent tissue and arrange for safe disposal. Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**  
Avoid contact with skin and eyes.

**Conditions for safe storage**  
Recommended storage temperature: -20 to -80 °C for long term.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**  
None necessary.

**Hand protection**  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.  
Handle with gloves.

**Eye protection**  
Safety glasses if desired

**Skin and body protection**  
Laboratory coat

**Hygiene measures**  
Avoid contact with skin, eyes and clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**  
Colourless liquid

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>pH 7.4</td>
</tr>
<tr>
<td>Melting point</td>
<td>no data available</td>
</tr>
</tbody>
</table>
Boiling point: no data available
Flash point: no data available
Ignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Water solubility: soluble

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Avoid multiple freeze thaw cycles

Materials to avoid
Strong oxidizing agents, strong reducing agents

Hazardous decomposition products
None known

11. TOXICOLOGICAL INFORMATION

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.

Reproductive toxicity
no data available

Aspiration hazard
no data available

Potential health effects

<table>
<thead>
<tr>
<th>Mode</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>None</td>
</tr>
<tr>
<td>Ingestion</td>
<td>None</td>
</tr>
<tr>
<td>Skin</td>
<td>None</td>
</tr>
<tr>
<td>Eyes</td>
<td>May cause eye irritation.</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional Information

12. ECOLOGICAL INFORMATION

Toxicity
   No data available

Persistence and degradability
   Degrades easily

Bioaccumulative potential
   Low

Mobility in soil
   no data available

PBT and vPvB assessment
   no data available

Other adverse effects
   no data available

13. DISPOSAL CONSIDERATIONS

Product
   Observe all federal, state, and local environmental regulations. Can be disposed of down sink.

Contaminated packaging
   Dispose of as unused product.

14. TRANSPORT INFORMATION

   Not dangerous goods, no transport limitations.

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

   None

Last update: 03 June 2016

Prepared by: The Native Antigen Company

Although the information, opinions and recommendations contained in this Safety Data Sheet are compiled from sources believed to be reliable, we accept no responsibility for the accuracy, sufficiency, or reliability or for any loss or injury resulting from the use of the information.