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

**Product identifier**

**Product Name**  Fluzone® Quadrivalent

**Other means of identification**

**Product Information**

- Single dose vial in package of 10 vials
- Single dose, prefilled syringe, without needle 0.25 mL in package of 10
- Single dose, prefilled syringe, without needle 0.5 mL in package of 10
- Multidose vial in package of one

**Synonyms**  Influenza Vaccine

**Recommended use of the chemical and restrictions on use**

**Recommended Use**  Active immunization for the prevention of influenza disease caused by influenza A subtype viruses and type B viruses contained in the vaccine.

**Uses advised against**  Not available.

**Details of the supplier of the safety data sheet**

**Supplier Address**

Sanofi Pasteur
1 Discovery Drive
Swiftwater, PA 18370

**Emergency telephone number**

**Company Phone Number**  1-800-VACCINE (1-800-822-2463)
**24 Hour Emergency Phone Number**  1-570-957-4400
**Emergency Telephone**  1-570-957-4400

2. HAZARDS IDENTIFICATION

**Classification**

**Health Hazards**

Not classified.

**Physical hazards**

Not classified.

**OSHA Regulatory Status**

This product is a vaccine that is safe for consumers when used according to the label directions. Potential hazards that may occur if product is not used according to the consumer label are as follows throughout the sheet.

**Label elements**

**Emergency Overview**

Normal precautions common to safe manufacturing practice should be followed in handling and storage.

**Appearance**  Clear and slightly opalescent suspension  **Physical state**  Liquid  **Odor**  Not available.

**Hazards not otherwise classified (HNOC)**

Not classified as a hazardous substance.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Split Influenza Virus, inactivated strains</td>
<td>N/A</td>
<td>0.012</td>
</tr>
<tr>
<td>Sodium phosphate-buffered isotonic sodium chloride solution</td>
<td>N/A</td>
<td>q.s. to 100</td>
</tr>
<tr>
<td>Thimerosal 50µg/0.5 mL(per dose)*</td>
<td>54-64-8</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note: Ingredients below reportable levels are not listed.

*Note: Only the multidose vial contains Thimerosal, a mercury derivative.

4. FIRST AID MEASURES

First aid measures

Eye contact: In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

Skin Contact: In case of contact, remove contaminated clothing. Immediately flush skin with copious amounts of water for at least 15 minutes. Obtain medical attention if skin reaction occurs.

Inhalation: In case of inhalation, remove to fresh air. If breathing is difficult, administer oxygen. Seek medical attention immediately.

Ingestion: In case of accidental ingestion, wash out mouth with copious amounts of water. Seek medical attention if needed. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

Self-protection of the first aider: Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed

Symptoms: Common effects of the vaccine include the following: pain, tenderness, erythema, and swelling of the injection site; swelling; irritability; abnormal crying; malaise; drowsiness; appetite loss; myalgia; vomiting; fever; headache.

Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical

Not available.

Hazardous combustion products: Not available.

Explosion data

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: None known.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Personal precautions Wear appropriate personal protective equipment (see Section 8).

Environmental precautions See Section 12 for additional ecological information.

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 Wipe up with absorbent material (e.g. cloth) for disposal. Area where spill occurred can be cleaned with the regular cleaning materials designated for the area.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
Storage Conditions Store at 2° to 8°C (35° to 46°F). Do not freeze.

Incompatible materials Not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure Guidelines This product, as supplied, does not contain any hazardous materials with Occupational Exposure Limits (OEL) established by the region specific regulatory bodies.

Appropriate engineering controls
Engineering Controls Used as supplied, no special engineering controls are needed when administering the vaccine.

Individual protection measures, such as personal protective equipment
Eye/face protection In laboratory or industrial settings, safety glasses with side shields are recommended

Skin and body protection In laboratory or industrial settings, gloves and lab coats are recommended.

Respiratory protection Used as supplied, general room ventilation is acceptable and no special respiratory protection is needed when administering the vaccine.

General Hygiene Considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Physical state Liquid
Appearance Clear and slightly opalescent suspension
Color Clear to slightly opalescent
Odor Not available.
Odor threshold Not available.

Property Values Remarks • Method
pH Not available.
Melting point/freezing point Not available.
Boiling point / boiling range Not available.
Flash point Not available.
Evaporation rate Not available.
Flammability (solid, gas) Not available.
Flammability Limit in Air
   Upper flammability limit: Not available.
   Lower flammability limit: Not available.
Vapor pressure Not available.
Vapor density Not available.
Specific Gravity Not available.
Water solubility Not available.
Solubility in other solvents Not available.
Partition coefficient Not available.
Autoignition temperature Not available.
 Decomposition temperature Not available.
Kinematic viscosity Not available.
Dynamic viscosity Not available.
Explosive properties Not available.
Oxidizing properties Not available.

Other Information
Softening point Not available.
Molecular weight Not available.
VOC Content (%) Not available.
Density Not available.
Bulk density Not available.

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal handling.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Not available.

Incompatible materials
Not available.

Hazardous Decomposition Products
None under normal use conditions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Product Information No data available.

Inhalation No impact known or expected under normal use.
Eye contact No impact known or expected under normal use.
Skin Contact No impact known or expected under normal use.
Ingestion No impact known or expected under normal use.
Information on toxicological effects

Symptoms
Common effects of the vaccine include the following: pain, tenderness, erythema, and swelling of the injection site; swelling; irritability; abnormal crying; malaise; drowsiness; appetite loss; myalgia; vomiting; fever; headache.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Not available.
Serious eye damage/eye irritation Not available.
Irritation Not available.
Corrosivity Not available.
Sensitization Not available.
Germ cell mutagenicity Not available.
Carcinogenicity Not available.
Reproductive toxicity
Pregnancy Category C: Animal reproduction studies have not been conducted with Fluzone Quadrivalent. It is also not known whether Fluzone Quadrivalent can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. It is not known whether Fluzone Quadrivalent is excreted in human milk.

Developmental Toxicity Not available.
Teratogenicity Not available.
STOT - single exposure Not classified.
STOT - repeated exposure Not classified.
Chronic toxicity Not available.
Subchronic toxicity Not available.
Target Organ Effects Not available.
Neurological effects Not available.
Other adverse effects Not available.
Aspiration hazard Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Not available.

Persistence and degradability
Not available.

Bioaccumulation
Not available.

Mobility
Not available.

Other adverse effects
Not available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number Not applicable.

California Hazardous Waste Codes Not applicable.
14. TRANSPORT INFORMATION

**DOT** Not regulated.

**TDG** Not regulated.

**MEX** Not regulated.

**ICAO (air)** Not regulated.

**IATA** Not regulated.

**IMDG** Not regulated.

**RID** Not regulated.

**ADR** Not regulated.

**ADN** Not regulated.

15. REGULATORY INFORMATION

**US Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. (Only the multidose vial contains Thimerosal)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>SARA 313 – Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thimerosal – 54-64-8</td>
<td>54-64-8</td>
<td>0.01</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**

- Acute health hazard: No
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

**CWA (Clean Water Act)**
This product contains the following substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42). (Only the multidose vial contains Thimerosal)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA – Reportable Quantities</th>
<th>CWA – Toxic Pollutants</th>
<th>CWA – Priority Pollutants</th>
<th>CWA – Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thimerosal 54-64-8</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).
US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals. (Only the multidose vial contains Thimerosal)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thimerosal – 54-64-8</td>
<td>Developmental</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated by state right-to-know regulations.

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable.

16. OTHER INFORMATION

Revision Date
Revision Note
Not available.

Disclaimer
Sanofi Pasteur considers that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. Sanofi Pasteur cannot be held liable for any loss, injury or damage from contact with the product.

End of Safety Data Sheet