

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product Name**

YF-VAX®

Other means of identification**Product Information**

Vaccine vial, 5 Dose (NDC 49281-915-68) supplied in a package of 1 vial (NDC 49281-915-05). Diluent vial, 3 mL (NDC 49281-912-68) supplied separately in a package of 1 vial (NDC 49281-912-03).

Vaccine vial, 1 Dose (NDC 49281-915-58) supplied in a package of 5 vials (NDC 49281-915-01). Diluent vial, 0.6 mL (NDC 49281-912-58) supplied separately in a package of 5 vials (NDC 49281-912-01).

Synonyms

Yellow Fever Vaccine

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

Active immunization of persons 9 months of age and older in the following categories: persons living or traveling to endemic areas, international travel, laboratory personnel.

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 live virus 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 Slight pink-brown suspension**Physical state** Liquid**Odor** Not available.**Hazards not otherwise classified (HNOC)**

Not classified as a hazardous substance.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Yellow Fever Vaccine

| Chemical Name | CAS No. | Weight-% |
|--------------------------------------|-----------|-------------|
| Yellow Fever virus, live, attenuated | N/A | N/A |
| Sorbitol solution | 50-70-4 | 5 |
| Water | 7732-18-5 | q.s. to 100 |

Note: Ingredients below reportable levels are not listed.

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: mild headaches, myalgia, low-grade fevers, or other minor symptoms for 5 to 10 days. Local reactions including edema, hypersensitivity, pain or mass at the injection site have also been reported following yellow fever vaccine administration. Immediate hypersensitivity reactions, characterized by rash, urticaria, and/or asthma, are uncommon and occur principally among persons with histories of egg allergy.

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

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 | Solid, until reconstitution | | |
| Appearance | Slight pink-brown suspension after reconstitution | Odor | Not available. |
| Color | Pink-brown | Odor threshold | Not available. |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------|----------------|-------------------------|
| 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. |

Acute Toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 | Intravenous LD50 |
|------------------------------|-----------------------|-------------|-----------------|------------------|
| Sorbitol solution 50-70-4 | = 15900 mg/kg (Rat) | - | - | - |

Information on toxicological effects**Symptoms**

Common effects of the vaccine include: mild headaches, myalgia, low-grade fevers, or other minor symptoms for 5 to 10 days. Local reactions including edema, hypersensitivity, pain or mass at the injection site have also been reported following yellow fever vaccine administration. Immediate hypersensitivity reactions, characterized by rash, urticaria, and/or asthma, are uncommon and occur principally among persons with histories of egg allergy.

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 YF-VAX vaccine. It is also not known whether YF-VAX vaccine can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. As there is a theoretical risk of transmission of vaccine components to the infants from breast-feeding mothers, lactation constitutes a contraindication, particularly when infants are below 9 months of age because of the risk of encephalitis. |
| 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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 does not contain any Proposition 65 chemicals.

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