Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: IFA

Cat. Code: vac-ifa-10, vac-ifa-60
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Emergency number: ORFILA (INRS): +33 (0)1 45 42 59 59

Disclaimer: All InvivoGen products are supplied for research and laboratory use only. Not for drug, household or other uses.

Section 2 – Hazards Identification

Emergency Overview:
OSHA Hazards
No known OSHA hazards

GHS classification
Not a dangerous substance according to GHS. This substance is not classified as dangerous according to Directive 67/548/EEC.

HMIS Classification: Health Hazard 0, Flammability Hazard 0, Reactivity Hazard 0
NFPA Rating: Health Hazard 0, Fire 0, Reactivity Hazard 0

Potential Health Effects
- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Skin: May be harmful if absorbed through the skin. May cause skin irritation.
- Eye contact: May cause eye irritation.
- Ingestion: May be harmful if swallowed.

Section 3 – Composition/Information on Ingredient

Synonyms: Incomplete Freund's Adjuvant

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mannide monooleate</td>
<td>9049-98-3</td>
<td>15</td>
</tr>
<tr>
<td>Paraffin oil</td>
<td>8042-47-5</td>
<td>85</td>
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</tbody>
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Section 4 – First Aid Measures

General advice: Consult a physician. Show this material safety data sheet to the doctor in attendance.
After skin contact: Immediately wash skin with soap and plenty of water. Consult a physician.
After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water provided person is conscious. Consult a physician.
After inhalation: Remove to fresh air. If not breathing give artificial respiration. Consult a physician.
After eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.

Section 5 – Fire Fighting Measures

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical powder or appropriate foam.
Specific hazards arising from the chemical: No data available.
Special Firefighting Procedures: Wear self-contained breathing apparatus for fire fighting if necessary.

Section 6 – Accidental Release Measures

Personal precautions: Wear protective equipment. Keep unprotected persons away. Avoid dust formation.
Method for Cleaning Up: Sweep up and place in closed containers for disposal. Dispose contaminated material as waste according to section 13. Ventilate area and wash spill site after material clean-up is complete.

Section 7 – Handling and Storage

Handling: Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.
User Exposure: Avoid inhalation. Use personal protective equipment (i.e. impermeable gloves, lab coat or apron).
Storage: Store at 4°C.

Section 8 – Exposure Controls / PPE

Personal protective equipment
Hand 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.
Eye 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).
Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Section 9 – Physical / Chemical Properties

Appearance
Physical state: Liquid
Color: Pale Yellow

Safety Data
Odor: No data available
Odor threshold: No data available
pH: No data available
Melting point/freezing point: No data available
Initial boiling point and boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability: No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: No data available
Relative density: No data available
Solubility: No data available
Partition coefficient (n-octanol/water): No data available
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Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

Section 10 – Stability and Reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: Strong oxidizing agents, strong bases.
Hazardous decomposition products: No data available

Section 11 – Toxicological Information

Acute toxicity:
Oral LD50: No data available
Inhalation LC50: No data available
Dermal LD50: No data available
Other information on acute toxicity: No data available
Skin corrosion/irritation: No data available
Serious eye damage/irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
Additional information: No data available

Section 12 – Ecological Information

Ecotoxicity: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available

Section 13 – Disposal Considerations

Product: Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.
Contaminated Packaging: Dispose of as unused product.

Section 14 – Transport Information

DOT (US): Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Section 15 – Regulatory Information

OSHA Hazards No known OSHA hazards
SARA 302 Component: None of the ingredients are listed.
SARA 313 Component: None of the ingredients are listed.
SARA 311/312 Hazards: None of the ingredients are listed.
Section 16 – Other Information

The information contained in this MSDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). InvivoGen provides this information in good faith and is based on our present knowledge. This MSDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.