



SAFETY DATA SHEET

Section 1: Identification

Product Name: Optiferrin™ (Recombinant Human Transferrin)

Product ID: 777TRF029

Brand: InVitria

Use: Optiferrin is recombinant human transferrin that is completely animal component free. Human transferrin is responsible for iron transport in animals. In cells, intracellular iron is required to maintain cell growth. In cell culture applications, iron delivery by transferrin has advantages compared to free iron or iron chelators. Free iron promotes free radical formation, which can damage cells. Iron-chelators tend to disrupt downstream processes and tend to have lower iron bioavailability, requiring excessive iron loading in cell culture media. Optiferrin is designed for use in cell culture media and life science research. Optiferrin has been shown to enhance the growth of mammalian cell types and primary cell lines.

Details of the supplier: InVitria
2718 Industrial Drive
Junction City, KS 66441
USA

Telephone: +1 800-916-8311

Section 2: Hazards Identification

Classification of the substance: Not a hazardous substance.
GHS Label elements, including precautionary statements: Not a hazardous substance.
Hazards not otherwise classified or covered by GHS: None

Section 3: Composition/Information on Ingredients

Substance (Synonyms): Optiferrin

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.



Section 4: First Aid Measures

Description of first aid measures:

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

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in Section 2 and/or Section 11.

Indication of any immediate medical attention and special treatment needed: No data available.

Section 5: Fire Fighting Measures

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

Special hazards arising from the substance: No data available

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: No data available

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas.



Ensure adequate ventilation. Avoid breathing dust. For personal protection see Section 8.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see Section 13.

Section 7: Handling and Storage

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed. For precautions see Section 2.

Conditions for safe storage: Keep container tightly closed in a dry and well ventilated place.

Recommended storage temperature: -20°C (frozen)

Specific end use(s): Apart from the uses mentioned in Section 1, no other specific uses are stipulated.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities.

Section 8: Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

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: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (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.

Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Section 9: Physical and Chemical Properties

Appearance:	Powder, lyophilized
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 (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available



Water solubility:	No data available
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Other safety information:	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 acids

Hazardous or other decomposition products: No data available

In the event of fire: See section 5.

Section 11: Toxicological Information

Acute toxicity: No data available

Inhalation: No data available

Dermal: 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been tested and identified. It is unlikely that there will be any toxicological problems with this material.

Section 12: Ecological Information

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

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

Other adverse effects: No data available



Section 13: Disposal Considerations

Observe all federal, state, and local environmental regulations.

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

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

Questions regarding this material should be directed to InVitria.

Phone: (800) 916-8311 Fax: (785) 238-5688

Address: 2718 Industrial Drive
Junction City, KS 66441 USA

Section 16: Other Information

ISO: 9001 certified

Warranty: The above information is believed to be correct but doesn't purport to be all inclusive and shall be used only as a guide. InVitria shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation Information:

InVitria
(800) 916-8311

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