

# Safety Data Sheet

Issue date 04/01/2017

Reviewed on 06/11/2023

## SECTION 1: IDENTIFICATION

**Product code:** 10-10/20, 10-30, 10-40/50, 10-60, 20-10/20, 20-40/50, 30-10/20, 40-10/20, 80-10/20, 80-30, 80-40/50, 80-60, 90-10/20

**Product name:** All-Fect, All-Fect In Vivo, All-Fect Kit, Prime-Fect, Prime-Fect In Vivo Kit, Leu-Fect A, Leu-Fect B, mRNA-Fect, mRNA-Fect In Vivo, mRNA-Fect Kit, mRNA-Fect In Vivo Kit, CRISP-Fect

**Packing:** 1.0 or 2.0 mL/vial

**Product Application:** Transfection Reagent

**Product Description:** Laboratory Chemical

**Identified uses:** Use only for research, not for diagnostic procedures

### Manufacture/Supplier

RJH Biosciences Inc.  
10230 Jasper Ave Suite 4000  
Edmonton, AB, T5J 4P6,  
CANADA  
[www.rjhbiosciences.com](http://www.rjhbiosciences.com)  
**Phone:** (780) 270-5267

**Emergency:** 1 – 780 – 270-5267

## SECTION 2: HAZARDS IDENTIFICATION

**GHS Classification:** The product is classified and labeled based on the Globally Harmonized System (GHS)

**GHS Label elements, including precautionary statements:**

**Pictogram**



**Signal Word**

Warning

**Hazard Statements**

**Physical/ Health Hazard** H302 + H312, H341, H315 + H320 Causes skin and eye irritation, harmful if absorbed through skin or swallowed

**Precautionary Statements**

**Prevention** P260, P280, P285, P264 Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling

**Specific effects**

**Carcinogenic effects** No data available

**Sensitization** No data available

**Mutagenic effects** No data available

**Target Organ Effects** No known effects

**Reproductive toxicity** No data available

**Hazardous Materials Identification System (HMIS)**

**Health** 0 **Flammability** 0 **Reactivity** 0

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Non-hazardous component** Ultra-pure DNase/RNase free distilled water (100%)

**Chemical characterization** Polymer solution in non-hazardous components, water

**Additional information** The composition of the polymers is considered proprietary, and it is withheld in accordance with the provisions of Trade Secrets

## SECTION 4: FIRST AID MEASURES

Show this safety data sheet to the doctor in attendance.

|                             |                  |                                                                                                                                                                                          |
|-----------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>If on skin/Eyes</b>      | P302+P352, P305B | IF ON SKIN: Wash with soap and water, rinse thoroughly with water,<br>IF IN EYES, Separate eyelids with fingertips, remove contact lenses if worn, Rinse thoroughly under running water. |
| <b>Inhalation</b>           | P304+P340, P310  | May be harmful on inhalation. Not expected to be an inhalation hazard, keep comfortable breathing, Consult a physician if necessary.                                                     |
| <b>Ingestion</b>            | P301+P330+P331   | May be harmful if swallowed. Not expected to present a significant ingestion under anticipated conditions. Rinse mouth, provide fresh air If you feel unwell, seek medical advice        |
| <b>Symptoms and effects</b> |                  | No further relevant information available                                                                                                                                                |

## SECTION 5: FIRE FIGHTER MEASURES

|                                                              |                                                                                                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing media</b>                                   | <b>Suitable extinguishing media:</b> Water Foam Carbon dioxide (CO <sub>2</sub> ) Dry powder<br><b>Unsuitable extinguishing media:</b> For this substance/mixture no limitations of extinguishing agents are given. |
| <b>Special hazards arising from the substance or mixture</b> | Carbon oxides<br>Nitrogen oxides (NO <sub>x</sub> )<br>Hydrogen chloride gas<br>Combustible.<br>Development of hazardous combustion gases or vapor possible in the event of fire.                                   |
| <b>Advice for firefighters</b>                               | In the event of fire, wear self-contained breathing apparatus.                                                                                                                                                      |
| <b>Further information</b>                                   | Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.                                                      |

## SECTION 6: ACCIDENTAL RELEASE MEADURES

**Personal precautions, protective equipment, and emergency procedures:** Advice for non-emergency personnel: Avoid inhalation of dust. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**Environmental precautions:** Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Cover drains. Collect, bind, and pump off spills. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dust.

## SECTION 7: HANDLING AND STORAGE

|                                                                     |                                                                                                                                                                                                                           |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage</b>                                                      | P405                                                                                                                                                                                                                      |
| <b>Precautions for safe handling</b>                                | For precautions see section 2.                                                                                                                                                                                            |
| <b>Conditions for safe storage, including any incompatibilities</b> | <b>Storage conditions:</b> Tightly closed. Dry.<br><b>Storage stability:</b> Recommended storage temperature -20 to 8°C, Hygroscopic in nature.<br><b>Storage class:</b> Storage class (TRGS 510), Non-Combustible Solids |
| <b>Specific end use(s)</b>                                          | Apart from the uses mentioned in section 1 no other specific uses are stipulated                                                                                                                                          |

## SECTION 8: TOXICOLOGICAL INFORMATION

This product does not contain any substances considered to be hazardous to health.

|                       |                                         |                              |                    |
|-----------------------|-----------------------------------------|------------------------------|--------------------|
| <b>Acute Toxicity</b> | No toxicology information is available. | <b>Carcinogenic effects</b>  | No data available. |
| <b>Eyes</b>           | May cause eye irritation                | <b>Mutagenic effects</b>     | No data available. |
| <b>Skin</b>           | May cause skin irritation               | <b>Reproductive toxicity</b> | No data available. |
| <b>inhalation</b>     | May be harmful by inhalation.           | <b>Sensitization</b>         | No data available. |
| <b>Ingestion</b>      | May be harmful if swallowed.            |                              |                    |

## SECTION 9: EXPOSURE CONTROL/PERSONAL PROTECTION

|                                        |                                                                                                                                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering measures</b>            | Ensure adequate ventilation, especially in confined areas                                                                                     |
| <b>Personal Protective Equipment</b>   | It depends on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material is used. |
| <b>Respiratory protection</b>          | In case of insufficient ventilation, wear suitable respiratory equipment.                                                                     |
| <b>Hand protection</b>                 | Impervious gloves                                                                                                                             |
| <b>Eye protection</b>                  | Wear safety glasses with side shields (or goggles)                                                                                            |
| <b>Skin and Body Protection</b>        | Lightweight protective clothing                                                                                                               |
| <b>Hygiene measures</b>                | Handle in accordance with good industrial hygiene and safety practice.                                                                        |
| <b>Environmental exposure controls</b> | No special environmental precautions required                                                                                                 |

## SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

|                   |             |                              |                   |
|-------------------|-------------|------------------------------|-------------------|
| <b>Form</b>       | Liquid      | <b>Oxidizing properties</b>  | No data available |
| <b>Appearance</b> | Transparent | <b>Upper explosion limit</b> | No data available |
| <b>Odor</b>       | None        | <b>Lower explosion limit</b> | No data available |

|                                      |                   |                               |                   |
|--------------------------------------|-------------------|-------------------------------|-------------------|
| <b>Odor Threshold</b>                | No data available | <b>Partition coefficient:</b> | No data available |
| <b>Boiling point / boiling range</b> | No data available | <b>n-octanol/water</b>        | No data available |
| <b>Melting point / melting range</b> | No data available | <b>Vapor Pressure</b>         | No data available |
| <b>flash point</b>                   | No data available | <b>vapor density</b>          | No data available |
| <b>Autoignition Temperature</b>      | No data available | <b>Viscosity</b>              | No data available |
| <b>Evaporation rate</b>              | No data available | <b>pH value</b>               | 6 to 8            |
| <b>Flammability (solid, gas)</b>     | No data available |                               |                   |

## SECTION 11: STABILITY AND REACTIVITY

|                                           |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| <b>Stability</b>                          | Stable under normal conditions                             |
| <b>Materials to avoid</b>                 | No dangerous reaction known under conditions of normal use |
| <b>Possibility of hazardous reactions</b> | Hazardous reaction has not been reported                   |
| <b>Hazardous decomposition products</b>   | None under normal use conditions                           |
| <b>Polymerization</b>                     | Hazardous polymerization does not occur                    |
| <b>Conditions to avoid</b>                | None under normal processing                               |

## SECTION 12: ECOLOGICAL INFORMATION

|                       |                                                                 |                        |                          |
|-----------------------|-----------------------------------------------------------------|------------------------|--------------------------|
| <b>Ecotoxicity</b>    | Contains no substances known to be hazardous to the environment |                        |                          |
| <b>Mobility</b>       | No information available                                        |                        |                          |
| <b>Biodegradation</b> | No information available                                        | <b>Bioaccumulation</b> | No information available |

## SECTION 13: TRANSPORT INFORMATION

|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| <b>TDG</b>                 | Not regulated as a dangerous good                                    |
| <b>IMDG</b>                | Not dangerous goods                                                  |
| <b>IATA</b>                | Not dangerous goods                                                  |
| <b>Further information</b> | Not classified as dangerous in the meaning of transport regulations. |

## SECTION 14: DISPOSAL CONSIDERATION

**Disposal** P501

**Waste treatment methods:** Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

## SECTION 15: REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

## SECTION 16: OTHER INFORMATION

**Reason for revision** SDS sections updated.

**For Research Use Only, not for use in diagnostic procedures.**

"This information was acquired through search or investigation. This is only a guideline for the use of the materials, not all-inclusive. It is recommended to use these materials with caution since there might be unknown hazards incident. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THIS INFORMATION DOES NOT CONTITUTE ANY WARRANTY, EXPRESSED OR IMPLIED.

The End