1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
   Product name: Remdesivir (GS-5734)
   Catalog No.: BSV-S8932
   CAS No.: 1809249-37-3

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses: Laboratory chemicals, manufacture of substances.

1.3 Details of the supplier of the safety data sheet
   Company: BioservUK
   T: +44 (0)114 224 2235
   E: info@bioservuk.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
   Acute toxicity, Oral (Category 4), H302
   Acute aquatic toxicity (Category 1), H400

   Classification according to EU Directives DSD 67/548/EEC or DPD 1999/45/EC
   Xn, N Harmful, Dangerous for the environment R22, R50/53

2.2 GHS Label elements, including precautionary statements
   Labelling according Regulation (EC) No 1272/2008 [CLP]
   Pictogram
   Signal word
   No data available
   Hazard statement(s)
   H302 Harmful if swallowed.
   H400 Very toxic to aquatic life.
   Precautionary statement(s)
   P273 Avoid release to the environment.
   Supplemental hazard statements
   None.

2.3 Other hazards
   None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonyms: L-Alanine, N-[(S)-hydroxyphenoxyphosphinyl]-, 2-ethylbutyl ester, 6-ester with 2-C-(4-aminopyrrolo[2,1-f][1,2,4]triazin-7-yl)-2,5-anhydro-D-altrononitrile

N/A

Formula: C_{27}H_{35}N_{6}O_{8}P

Molecular Weight: 602.58

CAS No.: 1809249-37-3

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact
Remove any contact lenses, locate eye-wash station, and flush eyes immediately with large amounts of water. Separate eyelids with fingers to ensure adequate flushing. Promptly call a physician.

Skin contact
Rinse skin thoroughly with large amounts of water. Remove contaminated clothing and shoes and call a physician.

Inhalation
Immediately relocate self or casualty to fresh air. If breathing is difficult, give cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion
Wash out mouth with water; Do NOT induce vomiting; call a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, dry chemical, foam, and carbon dioxide fire extinguisher.

5.2 Special hazards arising from the substance or mixture

During combustion, may emit irritant fumes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use full personal protective equipment. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Refer to protective measures listed in sections 8.

6.2 Environmental precautions

Try to prevent further leakage or spillage. Keep the product away from drains or water courses.

6.3 Methods and materials for containment and cleaning up

Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); Decontaminate surfaces and equipment by scrubbing with alcohol; Dispose of contaminated material according to Section 13.

7. HANDLING AND STORAGE
7.1 **Precautions for safe handling**
Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation.

7.2 **Conditions for safe storage, including any incompatibilities**
Keep container tightly sealed in cool, well-ventilated area. Keep away from direct sunlight and sources of ignition.
Store at -20°C(powder) or -80°C( in solvent)

7.3 **Specific end use(s)**
No data available.

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters**
Components with workplace control parameters
This product contains no substances with occupational exposure limit values.

8.2 **Exposure controls**

Engineering controls
Ensure adequate ventilation. Provide accessible safety shower and eye wash station.

Personal protective equipment
- **Eye protection**
  - Safety goggles with side-shields.
- **Hand protection**
  - Protective gloves.
- **Skin and body protection**
  - Impervious clothing.
- **Respiratory protection**
  - Suitable respirator.
- **Environmental exposure controls**
  - Keep the product away from drains, water courses or the soil.
  - Clean spillages in a safe way as soon as possible.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**
- **Appearance**
  - solid
- **Odor**
  - No data available
- **Odor threshold**
  - No data available
- **pH**
  - No data available
- **Melting/freezing point**
  - No data available
- **Boiling point/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**
  - mg/mL
- **Partition coefficient**
  - No data available
## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity
No data available.

### 10.2 Chemical stability
Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions
No data available.

### 10.4 Conditions to avoid
No data available.

### 10.5 Incompatible materials
Strong acids/alkalis, strong oxidising/reducing agents.

### 10.6 Hazardous decomposition products
Under fire conditions, may decompose and emit toxic fumes.
Other decomposition products - no data available.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity
Classified based on available data. For more details, see section 2.

#### Skin corrosion/irritation
Classified based on available data. For more details, see section 2.

#### Serious eye damage/irritation
Classified based on available data. For more details, see section 2.

#### Respiratory or skin sensitization
Classified based on available data. For more details, see section 2.

#### Germ cell mutagenicity
Classified based on available data. For more details, see section 2.

#### Carcinogenicity
IARC: No component of this product present at a level equal to or greater than 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity
Classified based on available data. For more details, see section 2.

#### Specific target organ toxicity - single exposure
Classified based on available data. For more details, see section 2.

#### Specific target organ toxicity - repeated exposure
Classified based on available data. For more details, see section 2.

#### Aspiration hazard
12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment unavailable as chemical safety assessment not required or not conducted.

12.6 Other adverse effects
No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Dispose substance in accordance with prevailing country, federal, state and local regulations.

Contaminated packaging
Conduct recycling or disposal in accordance with prevailing country, federal, state and local regulations.

14. TRANSPORT INFORMATION

14.1 UN number

DOT: -
ADR: 3077.0
IMDG: 3077.0
IATA: 3077.0

14.2 UN proper shipping name

DOT: -
ADR: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
IATA: Environmentally hazardous substance, solid, n.o.s.

14.3 Transport hazard class(es)

DOT: -
ADR: 9.0
IMDG: 9.0
IATA: 9.0

14.4 Packaging group

DOT: -
ADR: III
IMDG: III
IATA: III

14.5 Environmental hazards

DOT: -
ADR: yes
IMDG Marine pollutant: yes
IATA: yes
14.6 Special precautions for user
No data available.

15. REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available.
15.2 Chemical safety assessment
Chemical safety assessment was not carried out for this product.

16. OTHER INFORMATION
The above information is believed to be correct based on our present knowledge but does not purport to be complete. The product is for research use only and for trained personnel. The burden of safe use of this material rests entirely with the user.