

Safety data sheet
according to 1907/2006/EC

Revision: 15 February 2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** Immobilized rProtein Solutions

· **Other means of identification:**

Immobilized rProteinA (IPA-300S) / IPA-3AF
 Immobilized rProteinA (IPA-500) / 10-3500
 Immobilized rProteinA (IPA-600) / CA-PRI / CaptivA® Protein A Affinity Resin
 Immobilized rProteinA / CA-HF / CaptivA® HF Protein A Affinity Resin
 Immobilized NGL COVID-19 Spike Protein Affinity Resin/ 10-SPIKE
 Immobilized Custom Affinity Resin / SFD3-E85 / GP64-AR / FH-AR
 Immobilized NGL COVID-19 Spike Protein AR 2.0 / SPIKE-AR20

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the mixture:** Laboratory chemicals
 · **Uses advised against:** No further relevant information available.

· **1.3 Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**

Repligen Corporation, 41 Seyon Street, Building 1, Suite 100 Waltham, MA 02453 USA
 +1 781-250-0111
 customerserviceUS@repligen.com

· **1.4 Emergency telephone number:**

ChemTel Inc.
 (800) 255-3924 (North America)
 (801) 1 (813)248-0585 (International)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02

· **Signal word** Warning

· **Hazard statements**

H226 Flammable liquid and vapour.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P243 Take action to prevent static discharges.
 P280 Wear protective gloves / eye protection.

(Cont'd. on page 2)

Safety data sheet
according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 1)

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P370+P378 In case of fire: Use for extinction: Alcohol resistant foam or water haze.

P403+P235 Store in a well-ventilated place. Keep cool.

- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Components:**

CAS: 64-17-5	Ethanol	 Flam. Liq. 2, H225	17,8-18,9%
EINECS: 200-578-6		 Eye Irrit. 2, H319	
Index number: 603-002-00-5			
Reg.nr.: 01-2119457610-43-XXXX			

- **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Alcohol resistant foam
Water haze or fog

(Cont'd. on page 3)

Safety data sheet
according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 2)

- Carbon dioxide
- Gaseous extinguishing agents
- Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** No further relevant information available.
- **5.2 Special hazards arising from the substance or mixture**
- Flammable liquid and vapour.
- Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
- Wear self-contained respiratory protective device.
- Wear fully protective suit.
- **Additional information:**
- In case of leakage, eliminate all ignition sources.
- Use large quantities of foam as it is partially destroyed by the product.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- Remove ignition sources.
- **6.2 Environmental precautions** Avoid release to the environment.
- **6.3 Methods and material for containment and cleaning up**
- Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
- Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- Prevent formation of aerosols.
- Avoid splashes or spray in enclosed areas.
- Use only in well ventilated areas.
- **Information about fire - and explosion protection:**
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Flammable gas-air mixtures may form in empty receptacles.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
- Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
- Store away from foodstuffs.
- Store away from oxidising agents.
- **Further information about storage conditions:**
- Keep container tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.

(Cont'd. on page 4)

Safety data sheet
according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

· **7.3 Specific end use(s)** No further relevant information available. (Cont'd. from page 3)

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

64-17-5 Ethanol	
WEL (Great Britain)	Long-term value: 1920 mg/m ³ , 1000 ppm
OEL (Ireland)	Short-term value: 1000 ppm

· **8.2 Exposure controls**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required under normal conditions of use.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

Nitrile rubber, NBR
Butyl rubber, BR
Neoprene gloves
Natural rubber, NR
Sensibilisation by the components in the glove materials is possible.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment:**

No further relevant information available.

· **Risk management measures:** No further relevant information available.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Appearance**

Form:	Liquid
Colour:	Colourless
Odour:	Alcohol-like
Odour threshold:	Not determined.

(Cont'd. on page 5)

Safety data sheet

according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 4)

· pH-value:	Not determined.
· Melting point/freezing point:	Not determined.
· Initial boiling point and boiling range:	>35 °C
· Flash point:	>23 °C
· Flammability (solid, gas):	Not applicable.
· Auto/Self-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidising properties	Non-oxidising.
· Vapour pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with water:	Partly miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Flammable liquid and vapour.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
- **10.4 Conditions to avoid** Keep ignition sources away - Do not smoke.
- **10.5 Incompatible materials** Oxidisers, strong bases, strong acids
- **10.6 Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

(Cont'd. on page 6)

Safety data sheet
according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 5)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **IARC (International Agency for Research on Cancer):**
Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	Ethanol	1
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- **Probable routes of exposure:**
Ingestion.
Inhalation.
Eye contact.
Skin contact.
- **Repeated dose toxicity:** No further relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Avoid release to the environment.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

(Cont'd. on page 7)

Safety data sheet

according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 6)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

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| 14.1 UN-Number | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not Regulated |
| 14.2 UN proper shipping name | |
| · DOT | Not Regulated |
| · ADR/RID/ADN, IMDG, IATA | Not Regulated |
| 14.3 Transport hazard class(es) | |
| · DOT, ADR/RID/ADN, IMDG, IATA | |
| · Class | Not Regulated |
| 14.4 Packing group | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not Regulated |
| 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| 14.6 Special precautions for user | Not applicable. |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| Transport/Additional information: | |
| · DOT | Classified as combustible under US DOT regulations. Labeling is only required for single packages ≥119 US gal / 450 L. |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **IARC (International Agency for Research on Cancer)**
Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	Ethanol		1
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- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients are listed.
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

(Cont'd. on page 8)

Safety data sheet

according to 1907/2006/EC

Revision: 12 November 2021

Trade name: Immobilized rProtein Solutions

(Cont'd. from page 7)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

- **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulable, Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

- **Sources**

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

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