

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

SAFETY DATA SHEET

4-nm Colloidal Gold-Antibody Complexes , freeze-dried with preservative

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

1.1 Product identifier

Product name: 4-nm Colloidal Gold-Antibody Complexes, freeze-dried with preservative

Product code:

109-185-011	109-185-098	112-185-143	115-185-071	115-185-166	304-185-003	706-185-148
109-185-043	111-185-144	112-185-167	115-185-075	123-185-021	308-185-003	711-185-152
109-185-088	112-185-075	115-185-068	115-185-146	301-185-003	705-185-147	713-185-147

SDS #: 26EU

Product description:

703-185-155	4 nm Colloidal Gold-AffiniPure Donkey Anti-Chicken IgY (IgG) (H+L) (min X Bov,Gt,GP,Sy Hms,Hrs,Hu,Ms,Rb,Rat,Shp Sr Prot) (LM Grade)
109-185-011	4nm Colloidal Gold-AffiniPure Goat Anti-Human Serum IgA, α Chain Specific (LM Grade)
109-185-043	4nm Colloidal Gold-AffiniPure Goat Anti-Human IgM, Fc γ 2 μ Fragment Specific (LM Grade)
109-185-088	4nm Colloidal Gold-AffiniPure Goat Anti-Human IgG (H+L) (min X Bov,Hrs,Ms Sr Prot) (LM Grade)
109-185-098	4nm Colloidal Gold-AffiniPure Goat Anti-Human IgG, Fc γ 2 Fragment Specific (min X Bov,Hrs,Ms Sr Prot) (LM Grade)
111-185-144	4nm Colloidal Gold-AffiniPure Goat Anti-Rabbit IgG (H+L) (min X Hu,Ms,Rat Sr Prot) (LM Grade)
112-185-075	4nm Colloidal Gold-AffiniPure Goat Anti-Rat IgM, μ Chain Specific (min X Hu,Bov,Hrs Sr Prot) (LM Grade)
112-185-143	4nm Colloidal Gold-AffiniPure Goat Anti-Rat IgG (H+L) (min X Hu,Bov,Hrs,Rb Sr Prot) (LM Grade)
112-185-167	4nm Colloidal Gold-AffiniPure Goat Anti-Rat IgG (H+L) (min X Ms,Hu,Bov,Hrs,Rb Sr Prot) (LM Grade)
115-185-068	4nm Colloidal Gold-AffiniPure Goat Anti-Mouse IgG + IgM (H+L) (min X Hu,Bov,Hrs Sr Prot) (LM Grade)
115-185-071	4nm Colloidal Gold-AffiniPure Goat Anti-Mouse IgG, Fc γ 2 Fragment Specific (min X Hu,Bov,Hrs Sr Prot) (LM Grade)
115-185-075	4nm Colloidal Gold-AffiniPure Goat Anti-Mouse IgM, μ Chain Specific (min X Hu,Bov,Hrs Sr Prot) (LM Grade)
115-185-146	4nm Colloidal Gold-AffiniPure Goat Anti-Mouse IgG (H+L) (min X Hu,Bov,Hrs,Rb,Sw Sr Prot) (LM Grade)
115-185-166	4nm Colloidal Gold-AffiniPure Goat Anti-Mouse IgG (H+L) (min X Rat,Hu,Bov,Hrs,Rb Sr Prot) (LM Grade)
123-185-021	4nm Colloidal Gold-AffiniPure Goat Anti-Horseradish Peroxidase (LM Grade)
301-185-003	4nm Colloidal Gold-AffiniPure Rabbit Anti-Bovine IgG (H+L) (LM Grade)
304-185-003	4nm Colloidal Gold-AffiniPure Rabbit Anti-Dog IgG (H+L) (LM Grade)
308-185-003	4nm Colloidal Gold-AffiniPure Rabbit Anti-Horse IgG (H+L) (LM Grade)
705-185-147	4nm Colloidal Gold-AffiniPure Donkey Anti-Goat IgG (H+L) (min X Ck,GP,Sy Hms,Hrs,Hu,Ms,Rb,Rat Sr Prot) (LM Grade)
706-185-148	4 nm Colloidal Gold-AffiniPure Donkey Anti-Guinea Pig IgG (H+L) (min X Bov,Ck,Gt,Sy Hms,Hrs,Hu,Ms,Rb,Rat,Shp Sr Prot) (LM Grade)
711-185-152	4 nm Colloidal Gold-AffiniPure Donkey Anti-Rabbit IgG (H+L) (min X Bov,Ck,Gt,GP,Sy Hms,Hrs,Hu,Ms,Rat,Shp Sr Prot) (LM Grade)
713-185-147	4 nm Colloidal Gold-AffiniPure Donkey Anti-Sheep IgG (H+L) (min X Ck,GP,Sy Hms,Hrs,Hu,Ms,Rb,Rat Sr Prot) (LM Grade)

Product type: Freeze-dried powder

Other means

of identification: None

1.2 Relevant identified uses of the substance or mixture identifier

For *in vitro* research use only. Not for diagnostic or therapeutic use. This is not a medical device. Contact suppliers for specific applications.

1.3 Details of the supplier of the safety data sheet

European Contact

Jackson ImmunoResearch Europe LTD
Unit 7, Acorn Business Centre
Oaks Drive, Newmarket,
Suffolk, CB8 7SY, UK
T: +44 (0) 1638 782616
F: +44 (0) 1638 668462
cuserv@jireurope.com
www.jireurope.com

Manufacturer

Jackson ImmunoResearch Laboratories, Inc.
872 West Baltimore Pike
West Grove, PA 19390
T: 800-367-5296, 610-869-4024
F: 610-869-0171
cuserv@jacksonimmuno.com
tech@jacksonimmuno.com
www.jacksonimmuno.com

E-mail address of the person responsible for this SDS: tech@jacksonimmuno.com

1.4 Emergency telephone number

Emergency Contact

Telephone number: CHEMTREC:
800-424-9300
OUTSIDE USA:
703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Directive 1999/45/E [DPD]

Europe

This product is not classified as dangerous after rehydration according to directive 1999/45/EC and its amendments.

Classification: Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard symbol or symbols: N/A

Indication of danger: N/A

Risk phrases: After rehydration, this product is not classified according to EU legislation.

Safety phrases: Not applicable.

Hazardous ingredients: The only danger of this product is associated with sodium azide which is present in a very small amount. After rehydration, sodium azide is below the threshold level of 1% for a toxic chemical.

Supplemental label elements: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings: Not applicable.

Tactile warning of danger: Not applicable.

2.3 Other hazards

SECTION 3: Composition/information on ingredients

Substance/mixture: Mixture

Chemical Name	CAS#	EC #	% (w/w)
Colloidal Gold-Antibody Complexes	NA	NA	<1
Sodium Azide	26628-22-8	247-852-1	1.4 [0.05% (w/v) after rehydration]
Sodium Phosphate	7558-79-4	231-448-7	4
Sodium Borate	1303-96-4	215-540-4	11
Sodium Chloride	7647-14-5	231-598-3	42
Bovine Serum Albumin	N/A	N/A	42

The mixture is not considered to be hazardous after rehydration for use.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: If this product enters the eyes, flush the eyes with gently running water for at least 15 minutes. If inflammation occurs, get medical attention.

Inhalation: Vapors of these products are likely to be only water vapors, so no adverse health effects are expected if vapors are inhaled. If irritation occurs, get medical attention.

Skin contact: Basic hygiene should prevent any problems. If contact with these products leads to reddening, inflammation, or irritation, flush exposed area with running water and get medical attention.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give small quantities of water to drink. Do not induce vomiting unless directed by medical personnel. These products are for *in vitro* research use only, not for household, diagnostic, or therapeutic use. They are not medical devices. If these products are accidentally swallowed, no adverse health effects are expected. However, no special precautions are taken to remove or detect the possible presence of endotoxin or pyrogens. If fever or adverse effects are experienced, get medical attention.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin Contact: No specific data.

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Fire-fighting measures

5.1
Extinguishing

media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Decomposition products may include oxides of carbon, nitrogen, and phosphorus in very small quantities.

5.3 Advice for fire fighters

Special precautions for fire fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire fighters: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots, and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6. Accidental release measures

6.1 Personal

precautions, protective equipment, and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas.

Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders:

6.2 Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material, e.g. sand, earth, vermiculite, or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor.

6.4 Reference to other sections: See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information

in this section contains generic advice and guidelines. The list of Identified Uses in Section 1 should be consulted for any available use specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures: Put on appropriate protective equipment (see Section 8).

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: Store at 2-8 ° C under sterile conditions. Store in original container away from incompatible materials (see Section 10) and food and drink. Keep container tightly sealed until ready to use. Prepare working dilution fresh each day. Remove aliquots for dilution and reseat container under sterile conditions. Do not store in unlabeled container. Use appropriate containment to avoid environmental contamination. Consult Product Specification sheets for additional storage information.

7.3 Specific end uses

Recommendations: Not available.

Industrial sector specific solutions: Not available.

SECTION 8: Exposure controls/personal protection

The information

in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Europe: No exposure limit value known.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available

Predicted effect concentrations

No PECs available

8.2 Exposure controls

Appropriate engineering controls: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure the eyewash station and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

Skin protection

Hand protection: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly-fitted, air-purifying, or air-fed respirator complying with an approved standard if a risk assessment indicates this is a necessity. Respirator selection must be on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information

on basic physical and chemical properties

Appearance

Physical state: Liquid

Color: Colorless, as water

Odor: Odorless, as water

Odor threshold: Not available

pH: 7.6

Melting point/freezing point: Not available

Initial boiling point and boiling range: Not available

Flash point: Not available

Evaporation rate: Not available

Flammability: Not available

Burning time: Not available

Burning rate: Not available

Upper/lower flammability or explosive limits: Not available

Vapor pressure: Not available

Vapor density: Not available

Relative density: Not available

Solubility(ies): Soluble in warm and cold water

Partition coefficient: n-octanol/water

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Explosive properties: Not available

Oxidizing properties: Not available

9.2 Other information

No additional information

SECTION 10: Stability and reactivity

10.1 Reactivity:

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: No specific data.

10.5 Incompatible materials: No specific data.

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products will not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Sodium Chloride: Oral Rat, LD50, 3,000 mg/kg

Sodium Phosphate: Oral Rat, LD50, 17g/kg

Sodium Azide: Oral Rat, LD50, 27 mg/kg

Sodium Borate: Oral Rat, LD50, 2660 mg/kg

Antibody/Serum Protein: Not established

Irritation/Corrosion

Conclusion/Summary: Not available.

Sensitizer

Conclusion/Summary: Not available.

Mutagenicity

Conclusion/Summary: Not available

Carcinogenicity

Conclusion/Summary: Not available

Reproductive toxicity

Conclusion/Summary: Not available

Teratogenicity

Conclusion/Summary: Not available

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, and Inhalation

Potential acute health effects

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Eye contact: No known significant effects or critical hazards.

Symptoms related to the physical, chemical, and toxicological characteristics

Inhalation: No specific data

Ingestion: No specific data

Skin contact: No specific data

Eye contact: No specific data

Delayed, immediate, and chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Long term effects

Potential immediate effects: Not available

Potential delayed effects: Not available

Potential chronic health effects

Conclusion/Summary: Not available

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Other information: Not available

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary: Not available

12.2 Persistence and degradability

Conclusion/Summary: Not available

12.3 Bioaccumulative potential. Not available

12.4 Mobility in soil

Soil/water partition coefficient: Not available

Mobility: Not available

12.5 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.6 Other adverse effects: No known significant effects or critical hazards.

SECTION 13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	Not available	Not available	Not available	Not available
14.2 UN proper shipping name	Not available	Not available	-	-
14.3 Transport hazard class(es)	Not available	Not available	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No	No	No	No
14.6 Special precaution for user	Not available	Not available	Not available	Not available
Additional information	-	-	-	-

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the and the IBC Code: Not available

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

[Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, mixtures, and articles](#): Not applicable

Other EU regulations

Europe inventory: Not determined

Black List Chemicals: Not listed

Priority List Chemicals: Not listed

Integrated pollution prevention and control list (IPPC) - Air: Not listed

IPPC - Water: Not listed

National Regulations

15.2 Chemical Safety Assessment: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling, and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard Statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
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Europe

Full text of abbreviation H statements: Not applicable

Full text of classifications [CLP/GHS]: Not applicable

Full text of abbreviated R phrases: Not applicable

Full text of classifications[DSD/DPD]: Not applicable

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