

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 1 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

SECTION 1: Identification

Product Identifier

Product Name: IRDye® 680RD Goat-anti-Rabbit Antibody

Product code: 926-68071, 925-68071

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Laboratory reagent, for research use only

Uses Advised Against: Not determined or not applicable.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

LI-COR

4647 Superior Street

Lincoln, NE 68504

800-447-3576

sds@licor.com

www.licor.com

Emergency Telephone Number:

United States

INFOTRAC

International +1 352 323 3500 / US & Canada 1 800 535 5053 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification: Not a hazardous substance or mixture

Label elements

Hazard Pictograms: None

Signal Word: None

Hazard statements: None

Precautionary Statements:

P102 Keep out of reach of children

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 9048-46-8	Serum Albumin	<50

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 2 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

CAS Number: 7647-14-5	Sodium chloride	<40
CAS Number: 7558-79-4	Disodium hydrogenorthophosphate	<8
CAS Number: 7447-40-7	Potassium chloride	<1
CAS Number: 7558-80-7	Sodium dihydrogenorthophosphate	<1
CAS Number: 26628-22-8	Sodium azide	<0.5

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this SDS to Provider

Show this Safety Data Sheet to the doctor in attendance.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. If respiratory symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

Wash affected area with plenty of soap and water. Remove contaminated clothing and launder before reuse. If skin irritation develops or persists, seek medical advice/attention.

After Eye Contact:

Immediately rinse eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. If eye irritation develops or persists, seek medical advice/attention.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

No significant acute effects.

Delayed Symptoms and Effects:

No significant delayed effects.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Not determined or not applicable.

Notes for the Doctor:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 3 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Thermal decomposition may produce irritating/toxic fumes/gases.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts.

Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers.

Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways.

Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Provide appropriate exhaust ventilation at places where dust is formed.

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 4 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
NIOSH	Sodium azide	26628-22-8	Ceiling Limit: 0.3 mg/m ³ ([0.1 ppm] as HN ₃)
	Sodium azide	26628-22-8	Ceiling Limit: 0.3 mg/m ³ (as NaN ₃)
United States(California)	Sodium azide	26628-22-8	Ceiling Limit: 0.3 mg/m ³ (0.1 ppm)
ACGIH	Sodium azide	26628-22-8	Ceiling Limit: 0.29 mg/m ³
	Sodium azide	26628-22-8	Ceiling Limit: 0.11 ppm (as Hydrazoic acid vapor)

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. 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. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 5 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Appearance	Dark Blue Solid
Odor	Not determined or not available.
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

Strong oxidizing agents

Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 6 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Name	Route	Result
Sodium azide	oral	LD50 Rat: 42 mg/kg
	dermal	LD50 Rabbit: 19 mg/kg
	inhalation	LC50 Rat: > 0.054 mg/L (4 hr [Dust])
Sodium chloride	oral	LD50 Rat: >3980 mg/kg
	inhalation	LC50 Rat: >10.5 mg/L (4 hr [dust])
	dermal	LD50 Rabbit: >10,000 mg/kg
Disodium hydrogenorthophosphate	oral	LD50 Rat: > 2000 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg ([Read-across substance data])
	inhalation	LC50 Rat: > 0.83 mg/L (4 hr [dust])
Potassium chloride	oral	LD50 Rat: 3020 mg/kg
Serum Albumin	Oral ATE	LD50 Rat: 500 mg/kg
Sodium dihydrogenorthophosphate	oral	LD50 Rat: > 2000 mg/kg (No deaths observed)
	dermal	LD50 Rat: > 2000 mg/kg (All animals survived [Read-across substance data])
	inhalation	LC50 Rat: > 0.83 mg/L (4hr [dust], No deaths observed)

Skin Corrosion/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Serious Eye Damage/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Disodium hydrogenorthophosphate	Not Applicable
Serum Albumin	Not Applicable
Sodium chloride	Not Applicable
Potassium chloride	Not Applicable
Sodium dihydrogenorthophosphate	Not Applicable

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 7 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Name	Classification
Sodium azide	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Disodium hydrogenorthophosphate	Not Applicable
Serum Albumin	Not Applicable
Sodium chloride	Not Applicable
Potassium chloride	Not Applicable
Sodium dihydrogenorthophosphate	Not Applicable
Sodium azide	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Sodium azide	May cause damage to the brain through prolonged or repeated exposure.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 8 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Sodium azide	Fish LC50 Oncorhynchus mykiss: 2.75 mg/L (96 hr)
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 0.35 mg/L (96 hr [growth rate])
Sodium chloride	Fish LC50 Lepomis macrochirus: 5840 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 874 mg/L (48 hr [immobilisation])
Disodium hydrogenorthophosphate	Fish LC50 Oncorhynchus mykiss: > 100 mg/L (96 hr [Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr [mobility, Read-across substance data])
	Aquatic Plants EC50 Desmodemus subspicatus: > 100 mg/L (72 hr [growth rate, Read-across substance data])
Potassium chloride	Fish LC50 Pimephales promelas: 880 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: >= 440 - <= 880 mg/L (48 hr [immobilization])
	Aquatic Plants EC50 Desmodemus subspicatus: > 100 mg/L (72 hr [growth rate])
Sodium dihydrogenorthophosphate	Fish LC50 Oncorhynchus mykiss: > 100 mg/L (96 hr [mortality, Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr [mobility, Read-across substance data])
	Aquatic Plants EC50 Desmodemus subspicatus: > 100 mg/L (72 hr [growth rate, Read-across substance data])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Sodium chloride	Fish NOEC Pimephales promelas: 252 mg/L (33 d [mortality])
	Aquatic Invertebrates NOEC Daphnia pulex: 314 mg/L (21 d [reproduction])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Sodium chloride	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 9 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Name	Result
Disodium hydrogenorthophosphate	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.
Potassium chloride	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.
Sodium dihydrogenorthophosphate	Persistence assessment based on biodegradability is not applicable for inorganic substances such as this one.
Sodium azide	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Sodium chloride	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.
Disodium hydrogenorthophosphate	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.
Potassium chloride	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.
Sodium dihydrogenorthophosphate	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.
Sodium azide	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Sodium chloride	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.
Disodium hydrogenorthophosphate	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.
Potassium chloride	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.
Sodium dihydrogenorthophosphate	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.
Sodium azide	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Sodium chloride	PBT assessment does not apply to inorganic compounds such as this substance.
Disodium hydrogenorthophosphate	PBT assessment does not apply to inorganic compounds such as this substance.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 10 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

Potassium chloride	PBT assessment does not apply to inorganic compounds such as this substance.
Sodium dihydrogenorthophosphate	PBT assessment not applicable to inorganic substances such as this one.
Sodium azide	PBT assessment does not apply to inorganic compounds such as this substance.

vPvB assessment:

Sodium chloride	vPvB assessment does not apply to inorganic compounds such as this substance.
Disodium hydrogenorthophosphate	vPvB assessment does not apply to inorganic compounds such as this substance.
Potassium chloride	vPvB assessment does not apply to inorganic compounds such as this substance.
Sodium dihydrogenorthophosphate	vPvB assessment not applicable to inorganic substances such as this one.
Sodium azide	vPvB assessment does not apply to inorganic compounds such as this substance.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 11 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances:

26628-22-8	Sodium azide	Listed
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SARA Section 313 Toxic Chemicals:

26628-22-8	Sodium azide	Listed
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CERCLA:

7558-79-4	Disodium hydrogenorthophosphate	Listed	5000 lbs
26628-22-8	Sodium azide	Listed	1000 lbs

RCRA:

26628-22-8	Sodium azide	Listed	P105
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Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

7558-79-4	Disodium hydrogenorthophosphate	Listed
26628-22-8	Sodium azide	Listed

New Jersey Right to Know:

7558-79-4	Disodium hydrogenorthophosphate	Listed
26628-22-8	Sodium azide	Listed

New York Right to Know:

7558-79-4	Disodium hydrogenorthophosphate	Listed
26628-22-8	Sodium azide	Listed

Pennsylvania Right to Know:

7558-79-4	Disodium hydrogenorthophosphate	Listed
26628-22-8	Sodium azide	Listed

California Proposition 65: None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.13.2020

Page 12 of 12

Revision date: 10.10.2024

IRDye® 680RD Goat-anti-Rabbit Antibody

designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

Initial Preparation Date: 08.13.2020

Revision date: 10.10.2024

Revision Notes:

Revision Date	Notes
2021-09-23	Added components and non-hazardous base statement
2021-10-20	Adjusted components

End of Safety Data Sheet