

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 09/25/2024

Revision date 09/25/2024

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1 Identification

- · Product identifier
- Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate
- · Other means of identification
- · Article number: 400004
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd.
- Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- **Classification of the substance or mixture** The substance is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements None
- · Hazard pictograms None
- · Signal word None
- · Hazard statements None
- · Information pertaining to particular dangers for man and environment:
- Classification system:
- NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)

HEALTH 0	Health = 0
	Fire = 0
REACTIVITY 0	Reactivity = 0

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.12000

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Protective Action Criteria for Chemicals

· PAC-1:

Substance is not listed.

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

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· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

· 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.

7 Handling and storage

- Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- **Conditions for safe storage, including any incompatibilities** Keep container tightly closed. Store in accordance with information listed on the product insert.
- **Storage:** Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Not required.

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

(Contd. from page 3)

Information on basic physical and chemica General Information Physical state Color:	
•	
Colory	Solid
Color:	According to product specification
Odor:	Characteristic
Storage Buffer	
Odor threshold:	Not determined.
Formulation	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Product is not flammable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value:	Not applicable.
Viscosity:	
Kinematic:	Not applicable.
SOLUBILITY	
Dynamic:	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not applicable.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Particle characteristics	Not determined.
Other information	
Appearance: Form:	PLATE
	,
Important information on protection of hea	
and environment, and on safety.	Net determined
Ignition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
VOC content:	0.00 %
Solids content:	100.0 %
Change in condition Evaporation rate	Not applicable.

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• Possibility of hazardous reactions No dangerous reactions known.

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

- on the skin: No irritant effect.
- · on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
 The substance is not subject to classification.
- · Interactive effects No interactive effects between components are known.
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- · Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· Waste treatment methods

• Recommendation: Smaller quantities can be disposed of with household waste.

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

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- · Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information · UN-Number · DOT, IMDG, IATA not regulated · UN proper shipping name · DOT, IMDG, IATA not regulated · Transport hazard class(es) · DOT, ADN, IMDG, IATA · Class not regulated · Packing group · DOT, IMDG, IATA not regulated · Environmental hazards: Not applicable. · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Special precautions for user Not applicable. · UN "Model Regulation": not regulated

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

Section 355 (extremely hazardous substances):	
Substance is not listed.	
· Section 313 (Specific toxic chemical listings):	
Substance is not listed.	
· TSCA (Toxic Substances Control Act):	
Substance is not listed.	
· Hazardous Air Pollutants	
Substance is not listed.	
[·] Proposition 65	,
· Chemicals known to cause cancer:	
Substance is not listed.	
• Chemicals known to cause reproductive toxicity for females:	
Substance is not listed.	
Chemicals known to cause reproductive toxicity for males:	
Substance is not listed.	
	(Contd. on page 7)

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Strip Plate

(Contd. from page 6)

· Chemicals known to cause developmental toxicity:

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

Substance is not listed.

· TLV (Threshold Limit Value)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- Date of previous version 02/14/2023
- Date of preparation 09/25/2024
- Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation IATA: International Air Transport Association
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- * Data compared to the previous version altered.



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1 Identification

- Product identifier
- Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate
- · Other means of identification
- · Article number: 400006
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

USA

 Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- **Classification of the substance or mixture** The substance is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements None
- · Hazard pictograms None
- · Signal word None
- · Hazard statements None
- · Information pertaining to particular dangers for man and environment:
- Classification system:
- NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)

HEALTH 0	Health = 0
	Fire = 0
REACTIVITY 0	Reactivity = 0

(Contd. on page 2)

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(Contd. from page 1)

Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.12000

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- Precoated (Mouse Anti-Rabbit IgG) EIA 96-Well Plate

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Protective Action Criteria for Chemicals

· PAC-1:

Substance is not listed.

(Contd. on page 3)

US -

Date of issue: 09/25/2024

Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

(Contd. from page 2)

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

· 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.

7 Handling and storage

- Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- **Conditions for safe storage, including any incompatibilities** Keep container tightly closed. Store in accordance with information listed on the product insert.
- **Storage:** Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Not required.

(Contd. on page 4)

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

(Contd. from page 3)

Information on basic physical and chemic	al properties
General Information	ai properties
Physical state	Solid
Color:	According to product specification
Odor:	Characteristic
Storage Buffer	
Odor threshold:	Not determined.
Formulation	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Product is not flammable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value:	Not applicable.
Viscosity:	
Kinematic:	Not applicable.
SOLUBILITY	
Dynamic:	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not applicable.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Particle characteristics	Not determined.
Other information	
Appearance:	
Form:	PLATE
Important information on protection of hea	
and environment, and on safety.	
Ignition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
VOC content:	0.00 %
Solids content:	100.0 %
Change in condition	
Evaporation rate	Not applicable.

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• Possibility of hazardous reactions No dangerous reactions known.

(Contd. on page 5)

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Date of issue: 09/25/2024

Revision date 09/25/2024

(Contd. from page 4)

Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- on the skin: No irritant effect.
- · on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
 The substance is not subject to classification.
- · Interactive effects No interactive effects between components are known.
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- · Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- · Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

(Contd. from page 5)

- · Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information · UN-Number · DOT, IMDG, IATA not regulated · UN proper shipping name · DOT, IMDG, IATA not regulated · Transport hazard class(es) · DOT, ADN, IMDG, IATA · Class not regulated · Packing group · DOT, IMDG, IATA not regulated · Environmental hazards: Not applicable. · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Special precautions for user Not applicable. · UN "Model Regulation": not regulated

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

Section 355 (extremely hazardous substances):	
Substance is not listed.	
· Section 313 (Specific toxic chemical listings):	
Substance is not listed.	
· TSCA (Toxic Substances Control Act):	
Substance is not listed.	
· Hazardous Air Pollutants	
Substance is not listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
Substance is not listed.	
• Chemicals known to cause reproductive toxicity for females:	
Substance is not listed.	
• Chemicals known to cause reproductive toxicity for males:	
Substance is not listed.	
	(Contd. on page 7)

Date of issue: 09/25/2024

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Trade name: Precoated (Mouse Anti-Rabbit IgG) ELISA 96-Well Solid Plate

(Contd. from page 6)

· Chemicals known to cause developmental toxicity:

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

Substance is not listed.

TLV (Threshold Limit Value)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- Date of previous version 02/14/2023
- Date of preparation 09/25/2024
- Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- * Data compared to the previous version altered.



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1 Identification

- · Product identifier
- Trade name: <u>Polysorbate 20</u>
 Synonym Polyoxyethylene (20) sorbitan monolaurate Tween 20
- PEG-10 sorbitan laurate
- CAS Number: 9005-64-5
- · Other means of identification
- · Article number: 400035 · NLP Number:
- 500-018-3
- · Application of the substance / the mixture

This product is for research use - Not for human or veterinary diagnostic or therapeutic use.

- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- Classification of the substance or mixture The substance is not classified, according to the Globally Harmonized System (GHS).
 Label elements
- · GHS label elements None
- · Hazard pictograms None
- Signal word None
- · Hazard statements None
- · Information pertaining to particular dangers for man and environment:
- Classification system:
- NFPA ratings (scale 0 4)



Health = 0 Fire = 1 Reactivity = 0

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Trade name: Polysorbate 20

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· HMIS-ratings (scale 0 - 4)

HEALTH 0	Health = 0
	Fire = 1
REACTIVITY 0	Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.12000

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 9005-64-5 Polysorbate 20
- Identification number(s)
- **NLP Number:** 500-018-3

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

- A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

• Personal precautions, protective equipment and emergency procedures Not required.

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(Contd. from page 2)

Trade name: Polysorbate 20

- Environmental precautions: Do not allow to enter sewers/ surface or ground water. • Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Protective Action Criteria for Chemicals
- **PAC-1:** Substance is not listed.
- **PAC-2:** Substance is not listed.
- · PAC-3: Substance is not listed.
- · 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.

7 Handling and storage

- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.

• Exposure controls

- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- · General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Goggles recommended during refilling.

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Trade name: Polysorbate 20

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(Contd. from page 3)

Information on basic physical and chemic	al properties
General Information	
Physical state	Fluid
Color:	Not determined.
Odor:	Characteristic
Storage Buffer	
Odor threshold:	Not applicable.
Formulation	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Not applicable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	275 °C (527 °F)
Decomposition temperature:	Not determined.
pH-value:	Not determined.
Viscosity:	
Kinematic:	Not determined.
SOLUBILITY	
Dynamic:	Not determined.
Solubility in / Miscibility with	
Water:	Not determined.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not determined.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Particle characteristics	Not applicable.
Other information	
Appearance:	
Form:	Liquid
Important information on protection of hea	
and environment, and on safety.	
Ignition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Change in condition	· ····································
Evaporation rate	Not determined.

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents

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(Contd. from page 4)

Trade name: Polysorbate 20

· Hazardous decomposition products: carbon oxides

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values	that are relevant	for classification:
------------------	-------------------	---------------------

- Oral LD50 >33 g/kg (mouse)
 - LD50 36,700 µL/kg (rat) Intraperitoneal LD50 3,850 mg/kg (rat)
 - Intraperitoneal LD50 3,850 mg/kg (rat)
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

- · Interactive effects No interactive effects between components are known.
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.
- · Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not determined.
- · vPvB: Not determined.
- · Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· Waste treatment methods

• **Recommendation:** Smaller quantities can be disposed of with household waste.

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Trade name: Polysorbate 20

· Uncleaned packagings:

• Recommendation: Disposal must be made according to official regulations.

4 Transport information		
· UN-Number · DOT, IMDG, IATA	not regulated	
 UN proper shipping name DOT, ADN, IMDG, IATA 	not regulated	
· Transport hazard class(es)		
[·] DOT, ADN, IMDG, IATA [·] Class	not regulated	
 Packing group DOT, IMDG, IATA 	not regulated	
· Environmental hazards:	Not applicable.	
 Transport in bulk according to Anne MARPOL73/78 and the IBC Code 	x II of Not applicable.	
· Special precautions for user	Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): ACTIVE
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value) Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of

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Trade name: Polysorbate 20

(Contd. from page 6) these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.
 Department issuing SDS: Environment protection department. Contact: - Date of previous version 02/14/2023 Date of preparation 09/25/2024 Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent D50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit * Data compared to the previous version altered.



Safety Data Sheet

acc. to OSHA HCS

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1 Identification

- Product identifier
- · Trade name: ELISA Tracer Dye
- · Other means of identification
- · Article number: 400040
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



Skin irritation 2 H315 Causes skin irritation.Eye irritation 2A H319 Causes serious eye irritation.

· Label elements

- · GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



· Signal word Warning

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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Trade name: ELISA Tracer Dye

(Contd. from page	e 1)
Precautionary statements	
P264 Wash thoroughly after handling.	
P280 Wear protective gloves / eye protection / face protection.	
P302+P352 If on skin: Wash with plenty of water.	
P321 Specific treatment (see on this label).	
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses present and easy to do. Continue rinsing.	, if
P332+P313 If skin irritation occurs: Get medical advice/attention.	
P362+P364 Take off contaminated clothing and wash it before reuse.	
P337+P313 If eye irritation persists: Get medical advice/attention.	
· Information pertaining to particular dangers for man and environment:	
· Classification system:	
· NFPA ratings (scale 0 - 4)	
Health = 2	
Fire = 0	
2 0 Reactivity = 0	
· HMIS-ratings (scale 0 - 4)	
HEALTH 2 Health = 2	
FIRE 0 Fire = 0	
Reactivity 0 Reactivity = 0	
· Other hazards	
· Results of PBT and vPvB assessment	
• PBT: Not applicable.	
• vPvB: Not applicable.	
Classification according to (d)(1)(ii) of § 1910.12000	-
The SDS issuer does not object to the classifications provided by importers or manufacturers	of
precursor products.	
· Hazards not otherwise classified	
There are no adverse physical or health effects known that are not covered by the hazard classes of	he
Hazard Communications Standard.	
3 Composition/information on ingredients	
· Chemical characterization: Substances	
· CAS No. Description	
EIA Tracer Dye	
• Chemical characterization: Mixtures	
• Description: Mixture of the substances listed below with nonhazardous additions.	
•	
· Dangerous components:	
CAS: 1310-73-2 Sodium hydroxide 0.5	%
RTECS: WB4900000	
· Other ingredients	
CAS: 7732-18-5 Water 99.25	%
RTECS: ZC0110000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
CAS: 25956-17-6 FD&C red dye <u>40</u> 0.259	6
	US -
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Trade name: ELISA Tracer Dye

(Contd. from page 2)

4 First-aid measures

- · Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing: If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

- A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Not required.

- · Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Protective Action Criteria for Chemicals

· PAC-1:	
1310-73-2 Sodium hydroxide	0.5 mg/m³
· PAC-2:	
1310-73-2 Sodium hydroxide	5 mg/m³

· PAC-3:

1310-73-2 Sodium hydroxide

· 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.

7 Handling and storage

Precautions for safe handling

No special precautions are necessary if used correctly.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

Keep away from sources of ignition.

Take precautionary measures against static discharge.re.

(Contd. on page 4)

50 mg/m³

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- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage: Store in accordance with information listed on the product insert.
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

- 1310-73-2 Sodium hydroxide
- PEL Long-term value: 2 mg/m³
- REL Ceiling limit value: 2 mg/m³
- TLV Ceiling limit value: 2 mg/m³

• Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Appropriate engineering controls No further data; see section 7.
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- · Breathing equipment: Not required.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Trade name: ELISA Tracer Dye

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemica	al properties
General Information	
Physical state	Fluid
· Color:	Red
· Odor:	Characteristic
Structural Formula	H2O
· Molecular Weight	18 g/mol
· Storage Buffer	
· Odor threshold:	Not applicable.
· Formulation	A solution in 0.5 M sodium hydroxide
 Melting point/Melting range: 	0 °C (32 °F)
· Boiling point/Boiling range:	100 °C (21Ź °F)
Flammability:	Not applicable.
Explosion limits:	· · · · · · · · · · · · · · · · · · ·
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· pH-value:	Not determined.
· Viscosity:	Not determined.
· Kinematic:	Not determined.
· SOLUBILITY	Not determined.
· Dynamic at 20 °C (68 °F):	0.952 mPas
· Solubility in / Miscibility with	0.952 mr as
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Vapor pressure at 20 °C (68 °F):	
· Vapor pressure:	23 hPa (17.3 mm Hg)
	$1 a/am^3 (9.245 lba/aal)$
· Density at 20 °C (68 °F):	1 g/cm³ (8.345 lbs/gal) Not determined.
Relative density	
 Vapor density Particle characteristics 	Not determined.
· Particle characteristics	Not applicable.
 Other information 	
· Appearance:	
· Form:	Liquid
Important information on protection of hea	
and environment, and on safety.	
- Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
· Solvent content:	
· Water:	99.3 %
	(Contd. on page 6

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		(Contd. from page 5)
· VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gal	
· Solids content:	0.5 %	
Change in condition		
• Evaporation rate	Not determined.	

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

• **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

1310-73-2 Sodium hydroxide

	,		()	
Oral	LDLO	1.57 mg/kg (human)		
	LD50	2,000 mg/kg (rat)		
		TDLO 44 mg/l	кg	(rat)
		LDLO 1.57 mg/kg	g (ł	uman)
	Intraperitoneal LD50	40 mg/kg (mouse)		

Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Interactive effects No interactive effects between components are known.

· Carcinogenic categories

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· Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not determined.
- · vPvB: Not determined.
- · Other adverse effects
- · Additional ecological information:
- · General notes: Not hazardous for water.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number · DOT, IMDG, IATA	not regulated
 UN proper shipping name DOT, IMDG, IATA 	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
 Packing group DOT, IMDG, IATA 	not regulated
· Environmental hazards:	Not applicable.
 Transport in bulk according to Annex II MARPOL73/78 and the IBC Code 	l of Not applicable.
 Special precautions for user 	Not applicable.
· UN "Model Regulation":	not regulated

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	Regulatory information
	Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
	Sara
·S	Section 355 (extremely hazardous substances):
Ν	None of the ingredients is listed.
·S	Section 313 (Specific toxic chemical listings):
Ν	None of the ingredients is listed.
·T	SCA (Toxic Substances Control Act):
Α	All components have the value ACTIVE.
۰H	lazardous Air Pollutants
Ν	None of the ingredients is listed.
·C	Chemicals known to cause cancer:
Ν	None of the ingredients is listed.
·C	Chemicals known to cause reproductive toxicity for females:
Ν	None of the ingredients is listed.
	Chemicals known to cause reproductive toxicity for males:
Ν	None of the ingredients is listed.
	Chemicals known to cause developmental toxicity:
Ν	None of the ingredients is listed.
· C	Carcinogenic categories
·E	EPA (Environmental Protection Agency)
Ν	None of the ingredients is listed.
	TLV (Threshold Limit Value)
Ν	None of the ingredients is listed.
۰N	NOSH-Ca (National Institute for Occupational Safety and Health)
Ν	None of the ingredients is listed.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

· Department issuing SDS: Environment protection department.

· Contact: -

- · Date of previous version 10/03/2024
- Date of preparation 10/08/2024
- **Abbreviations and acronyms:** IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation

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Trade name: ELISA Tracer Dye

IATA: International Air Transport Association 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety	(Contd. from page 8)
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
Skin irritation 2: Skin corrosion/irritation – Category 2	
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A	
* * Data compared to the previous version altered.	
	US



Safety Data Sheet

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1 Identification

- · Product identifier
- [•] Trade name: <u>ELISA Antiserum Dye</u>
- · Other means of identification
- · Article number: 400042
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity 1B H350 May cause cancer.

· Label elements

- · GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



· Signal word Danger

- · Hazard-determining components of labeling:
- Trypan blue reagent
- Hazard statements
- H350 May cause cancer.

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Trade name: ELISA Antiserum Dye

· Precautionary		(Orantel frame and a
 Precautionary 		(Contd. from page 1
P201 Ob P202 Do P280 We P308+P313 IF P405 Sto P501 Dis reg	tain special instructions before use. not handle until all safety precautions have be ear protective gloves/protective clothing/eye pro- exposed or concerned: Get medical advice/atte re locked up. pose of contents/container in accordance ulations. rtaining to particular dangers for man and system:	otection/face protection/hearing protection ention. with local/regional/national/internationa
Fi	ealth = 0 e = 0 eactivity = 0	
· HMIS-ratings (scale 0 - 4)	
FIRE 0 F	ealth = 0 ire = 0 eactivity = 0	
	icable. according to (d)(1)(ii) of § 1910.12000	ovided by importers or manufacturers o
vPvB: Not app Classification The SDS issu precursor produce Hazards not o There are no a	able. icable. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro	
vPvB: Not app Classification The SDS issu precursor produce Hazards not o There are no ac Hazard Commu	able. icable. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro- icts. herwise classified liverse physical or health effects known that ar	
 vPvB: Not app Classification The SDS issu precursor production Hazards not o There are no are the start of th	able. acable. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro- acts. herwise classified liverse physical or health effects known that ar nications Standard. h/information on ingredients acterization: Substances iption Dye acterization: Mixtures ixture of the substances listed below with nonly mponents:	e not covered by the hazard classes of the
 vPvB: Not app Classification The SDS issu precursor production Hazards not o There are no are that and communication Compositio Chemical chare CAS No. Desce EIA Antiserum Chemical chare Description: Mathematication 	able. acable. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro- acter. herwise classified liverse physical or health effects known that ar nications Standard. h/information on ingredients acterization: Substances iption Dye acterization: Mixtures ixture of the substances listed below with nonling mponents: Trypan blue reagent	e not covered by the hazard classes of the
 vPvB: Not app Classification The SDS issu precursor production Hazards not o There are no a Hazard Communication Chemical chain Chemical chain Chemical chain Chemical chain Description: M Dangerous co CAS: 72-57-1 	able. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro- lots. herwise classified liverse physical or health effects known that ar nications Standard. h/information on ingredients acterization: Substances iption Dye acterization: Mixtures ixture of the substances listed below with nonlimponents: Trypan blue reagent 5000	e not covered by the hazard classes of the
 vPvB: Not app Classification The SDS issu precursor production Hazards not o There are no are Hazard Community 3 Composition Chemical chair CAS No. Desce EIA Antiserum Chemical chair Description: M Dangerous co CAS: 72-57-1 RTECS: QJ647 	able. acable. according to (d)(1)(ii) of § 1910.12000 er does not object to the classifications pro- acter. herwise classified liverse physical or health effects known that ar nications Standard. h/information on ingredients acterization: Substances iption Dye acterization: Mixtures ixture of the substances listed below with nonl mponents: Trypan blue reagent 5000 Mater	e not covered by the hazard classes of the

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Trade name: ELISA Antiserum Dye

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4 First-aid measures

- · Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

- A solid water stream may be inefficient.
- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

- Ensure adequate ventilation.
- Protective Action Criteria for Chemicals
- · PAC-1:
- None of the ingredients is listed.

· PAC-2:

None of the ingredients is listed.

· PAC-3:

None of the ingredients is listed.

· 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.

7 Handling and storage

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care.
- Information about protection against explosions and fires:
- Keep respiratory protective device available.

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(Contd. from page 3)

- · Conditions for safe storage, including any incompatibilities
- Storage: Store in accordance with information listed on the product insert.
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- **Components with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

Store protective clothing separately.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

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Information on basic physical and chemic	al properties
General Information	
Physical state	Fluid
Color:	Blue
Odor:	Characteristic
Storage Buffer	
Odor threshold:	Not determined.
Formulation	A solution in 0.85% in sodium chloride
Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)
Flammability:	Not applicable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value:	Not determined.
Viscosity:	
Kinematic:	Not determined.
SOLUBILITY	
Dynamic at 20 °C (68 °F):	0.952 mPas
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Vapor pressure:	
Density at 20 °C (68 °F):	1 g/cm³ (8.345 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Particle characteristics	Not applicable.
Other information	
Appearance:	
Form:	Liquid
Important information on protection of hea	alth
and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Solvent content:	
Water:	99.7 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gal
Solids content:	0.4 %
Change in condition	
Evaporation rate	Not determined.

10 Stability and reactivity

· Reactivity No further relevant information available.

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Trade name: ELISA Antiserum Dye

- · Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:

72-57-1 Trypan blue reagent

- Oral LD50 6,200 mg/kg (rat)
 - Interperitoneal LDLO 300 mg/kg (rat)
 - Subcutaneous LD50 267 mg/kg (mouse)
 - Subcutaneous LDLO 300 mg/kg (rat)

· Primary irritant effect:

- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Interactive effects No interactive effects between components are known.

· Carcinogenic categories

- · IARC (International Agency for Research on Cancer)
- 72-57-1 Trypan blue reagent

· NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

· Toxicity

- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

2B

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Trade name: ELISA Antiserum Dye

· Other adverse effects

· Additional ecological information:

· General notes: Not hazardous for water.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number	
DOT, IMDG, IATA	not regulated
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated
Transport hazard class(es)	
DOT, ADN, IMDG, IATA	
Class	not regulated
Packing group	
DOT, IMDG, IATA	not regulated
Environmental hazards:	Not applicable.
Transport in bulk according to Annex	c II of
MARPOL73/78 and the IBC Code	Not applicable.
Special precautions for user	Not applicable.
UN "Model Regulation":	not regulated

15 Regulatory information

 $^{\cdot}$ Safety, health and environmental regulations/legislation specific for the substance or mixture $^{\cdot}$ Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

• Section 313 (Specific toxic chemical listings):

72-57-1 Trypan blue reagent

• TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

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Trade name: ELISA Antiserum Dye

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 Chemicals known to cause cancer: 72-57-1 Trypan blue reagent

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

National regulations:

Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

· Department issuing SDS: Environment protection department.

· Contact: -

Date of previous version 10/03/2024

- · Date of preparation 10/08/2024
- Abbreviations and acronyms:
- IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, ÉU)

- LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

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Trade name: ELISA Antiserum Dye

TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit Carcinogenicity 1B: Carcinogenicity – Category 1B • * Data compared to the previous version altered.

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Safety Data Sheet

acc. to OSHA HCS

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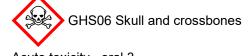
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1 Identification

- Product identifier
- · Trade name: Ellmans Reagent
- · Other means of identification
- · Article number: 400050
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

Classification of the substance or mixture



Acute toxicity - oral 3 Acute toxicity - dermal 3 H301 Toxic if swallowed. H311 Toxic in contact with skin.

GHS08 Health hazard

Specific target organ toxicity (repeated exposure) 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS05 Corrosion

GHS07

Eye damage 1

H318 Causes serious eye damage.

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Trade name: Ellmans Reagent Skin irritation 2 H315 Causes skin irritation. Specific target organ toxicity (single exposure) 3 H335 May cause respiratory irritation. · Label elements · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms GHS05 GHS06 GHS07 GHS08 · Signal word Danger · Hazard-determining components of labeling: Potassium phosphate dibasic Acetylthiocholine (iodide) Sodium chloride Potassium phosphate, Monobasic Hazard statements H301+H311 Toxic if swallowed or in contact with skin. Causes skin irritation. H315 H318 Causes serious eye damage. H335 May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. H373 Precautionary statements Do not breathe dust/fume/gas/mist/vapors/spray. P260 Wash thoroughly after handling. P264 Do not eat, drink or smoke when using this product. P270 Use only outdoors or in a well-ventilated area. P271 Wear protective gloves/protective clothing/eye protection/face protection/hearing P280 protection. If swallowed: Immediately call a poison center/doctor. P301+P310 P321 Specific treatment (see on this label). P330 Rinse mouth. P302+P352 If on skin: Wash with plenty of water. P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a poison center/doctor if you feel unwell. Get medical advice/attention if you feel unwell. P314 Take off immediately all contaminated clothing and wash it before reuse. P361+P364 P332+P313 If skin irritation occurs: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. P403+P233 Store locked up. P405 P501 Dispose of contents/container in accordance with local/regional/national/international regulations. Information pertaining to particular dangers for man and environment: · Classification system: · NFPA ratings (scale 0 - 4)

Health = 3 Fire = 0Reactivity = 0

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Trade name: Ellmans Reagent

HMIS-ratings (scale 0 - 4)

HEALTH *3	Health = *3
	Fire = 0
REACTIVITY 0	Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.12000

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

 Dangerous component 	ents:	
CAS: 7758-11-4 RTECS: TC5580000	Potassium phosphate dibasic	45.2%
CAS: 7647-14-5 RTECS: VZ4725000	Sodium chloride	29.7%
CAS: 7778-77-0 RTECS: TC6615500	Potassium phosphate, Monobasic	10.9%
CAS: 1866-15-5 RTECS: FZ9865000	Acetylthiocholine (iodide)	7.4%
CAS: 69-78-3 RTECS: DG9650000	DTNB	6.8%

4 First-aid measures

· Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- · Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

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(Contd. from page 3)

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment. A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture
- 67-56-1During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Mount respiratory protective device.
- Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
- Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

- Ensure adequate ventilation.
- Protective Action Criteria for Chemicals

· PAC-1:		
7758-11-4 Potassium phosphate dib	pasic	13 mg/m³
7778-77-0 Potassium phosphate, M	onobasic	9.6 mg/m ³
· PAC-2:		
7758-11-4 Potassium phosphate dib		140 mg/m³
7778-77-0 Potassium phosphate, M	onobasic	110 mg/m³
· PAC-3:		
7758-11-4 Potassium phosphate dib	basic	830 mg/m³
7778-77-0 Potassium phosphate, M	onobasic	630 mg/m³
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.

7 Handling and storage

· Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep respiratory protective device available.

- · Conditions for safe storage, including any incompatibilities
- Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

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Trade name: Ellmans Reagent

• **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Appropriate engineering controls No further data; see section 7.
- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the skin. Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

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Information on basic physical and chemic	al properties
General Information Physical state	Solid
5	Yellow
Color:	
Odor:	Characteristic
Storage Buffer	N1 6 P
Odor threshold:	Not applicable.
Formulation	A lyophilized powder
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Not determined.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value:	Not applicable.
Viscosity:	
Kinematic:	Not applicable.
SOLUBILITY	
Dynamic:	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not applicable.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Particle characteristics	Not determined.
Other information	
Appearance:	Q-lid
Form:	Solid
Important information on protection of he	aith
and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Solvent content:	
VOC content:	0.00 %
Solids content:	100.0 %
Change in condition	
Evaporation rate	Not applicable.

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

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Trade name: Ellmans Reagent

- Possibility of hazardous reactions No dangerous reactions known.
 Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

ATE (Acute Tox Oral	LD50	608 mg/kg
	LD50	
Dermal	LD50	4,054 mg/kg
7647-14-5 Sodiu	um chloride	
Oral	LDLO	1,000 mg/kg (man)
	TDLO	650 ml/kg (man)
	LD50	4,000 mg/kg (mouse)
		3,000 mg/kg (rat)
	LD50	4 g/kg (mouse)
Inhalative	LC50	320 mg/m³ (mouse)
	TCLO	0.63 mg/m ³ (human)
	LCLO	29,300 mg/m³/7h (mouse)
Irritation of skin	Irritation	500 mg/24h (rabbit) mild
Irritation of eyes	Irritation	100 mg/24h (rabbit) moderate
	Intraperitoneal LD50	2,602 mg/kg (mouse)
	Subcutaneous LD50	31.6 mg/kg (rat)
	Intravenous LD50	59.5 mg/kg (rat)
	Data	15 mg/3D (human) mild
	Subcutaneous LD50	3 g/kg (mouse)
7778-77-0 Potas	ssium phosphate, Mo	onobasic
Oral	LDLO	4,640 mg/kg (rat)
1866-15-5 Acety	/Ithiocholine (iodide)	
Oral	LD50	100 mg/kg (rat)
69-78-3 DTNB		
	Intraperitoneal LD50	2,080 mg/kg (mouse)
Primary irritant	effect:	
	tant to skin and mucou	
		nger of severe eye injury.
	lo sensitizing effects k	
The product she preparations:	cological information ows the following dar	ngers according to internally approved calculation methods
Tavia		
Toxic Irritant		

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Trade name: Ellmans Reagent

· Interactive effects No interactive effects between components are known.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not determined.
- **vPvB:** Not determined.
- · Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

· UN-Number		
· DOT, IMDG, IATA	not regulated	
· UN proper shipping name		
DOT, ADN, IMDG, IATA	not regulated	

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		(Contd. from page 8)
· Transport hazard class(es)		
· DOT, ADN, IMDG, IATA · Class	not regulated	
 Packing group DOT, IMDG, IATA 	not regulated	
· Environmental hazards:	Not applicable.	
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	II of Not applicable.	
· Special precautions for user	Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara

·Sara
· Section 355 (extremely hazardous substances):
None of the ingredients is listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.
· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients is listed.
· Chemicals known to cause cancer:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
· Carcinogenic categories
· EPA (Environmental Protection Agency)
None of the ingredients is listed.
· TLV (Threshold Limit Value)
None of the ingredients is listed.
 NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

US

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Trade name: Ellmans Reagent

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16 Other information
All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.
 Department issuing SDS: Environment protection department. Contact: -
· Date of previous version 09/25/2024
· Date of preparation 10/08/2024
· Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute toxicity - oral 3: Acute toxicity – Category 3
Skin irritation 2: Skin corrosion/irritation – Category 2 Eye damage 1: Serious eye damage/eye irritation – Category 1
Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3
Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) – Category 2
* Data compared to the previous version altered.
· · · · · · · · · · · · · · · · · · ·



Safety Data Sheet

acc. to OSHA HCS

Date of issue: 10/08/2024

Revision date 10/08/2024

Page 1/11

1 Identification

- Product identifier
- · Trade name: ELISA Buffer Concentrate (10X)
- · Other means of identification
- · Article number: 400060
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Specific target organ toxicity (repeated exposure) 2	2 H373 May cause damage to organs through prolonged or repeated exposure.
GHS05 Corrosion	
Eye damage 1	H318 Causes serious eye damage.
GHS07	
Skin irritation 2	H315 Causes skin irritation.
Specific target organ toxicity (single exposure) 3	H335 May cause respiratory irritation.
 Label elements GHS label elements The product is classified and labeled according to t 	the Globally Harmonized System (GHS). (Contd. on page 2)

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Trade name: ELISA Buffer Concentrate (10X)

· Hazard pictog	rams (Contd. from page
GHS05 GHS	07 GHS08
Signal word Da	anger
Hazard-determ	nining components of labeling:
Potassium phos	
Sodium chloride	9
Potassium phos	sphate, Monobasic
Hazard statem	ents
H315 Causes s	
	erious eye damage.
	e respiratory irritation.
	e damage to organs through prolonged or repeated exposure.
Precautionary	
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection / face protection.
P302+P352	If on skin: Wash with plenty of water.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P3	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,
P310	present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/internation regulations.
Information pe	ertaining to particular dangers for man and environment:
Classification	
	- ,



Health = 3Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH *3	Health = *3
FIRE 0	Fire = 0
REACTIVITY 0	Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 3)

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		(Contd. from page
Classification accor	rding to (d)(1)(ii) of § 1910.12000	c .
The SDS issuer doe precursor products.	es not object to the classifications provided by importers	or manufacturers of
· Hazards not otherw	ise classified	
	e physical or health effects known that are not covered by the	hazard classes of th
Hazard Communicati		
3 Composition/Inf	ormation on ingredients	
· Chemical characteri	ization: Mixtures	
	of the substances listed below with nonhazardous additions.	
 Dangerous compon 	ents:	
Dangerous compon CAS: 7647-14-5		23.4%
· Dangerous compon CAS: 7647-14-5 RTECS: VZ4725000	ents: Sodium chloride	23.4%
CAS: 7647-14-5	Sodium chloride	
CAS: 7647-14-5 RTECS: VZ4725000	Sodium chloride Potassium phosphate dibasic	
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4	Sodium chloride Potassium phosphate dibasic	13.3%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic	13.3%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic	13.3% 3.21%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0 RTECS: TC6615500	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic	13.3% 3.21%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0 RTECS: TC6615500 CAS: 9048-46-8	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic	13.3% 3.21% 1.0%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0 RTECS: TC6615500 CAS: 9048-46-8 RTECS: AY9296000	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic Albumin, bovine	13.3% 3.21% 1.0%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0 RTECS: TC6615500 CAS: 9048-46-8 RTECS: AY9296000 CAS: 26628-22-8 RTECS: VY8050000	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic Albumin, bovine	23.4% 13.3% 3.21% 1.0% 0.1%
CAS: 7647-14-5 RTECS: VZ4725000 CAS: 7758-11-4 RTECS: TC5580000 CAS: 7778-77-0 RTECS: TC6615500 CAS: 9048-46-8 RTECS: AY9296000 CAS: 26628-22-8	Sodium chloride Potassium phosphate dibasic Potassium phosphate, Monobasic Albumin, bovine	13.39 3.219 1.0%

4 First-aid measures

CAS: 194491-31-1

Date of issue: 10/08/2024

· Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.

EDTA, tetrasodium salt hydrate

- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:
- Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

(Contd. on page 4)

0.38%

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Trade name: ELISA Buffer Concentrate (10X)

67-56-1Duri Advice for	zards arising from the substance or mixture ing heating or in case of fire poisonous gases are produced. firefighters equipment: Mouth respiratory protective device.	(Contd. from page
Accident	al release measures	
Mount respi Wear protect Environme Dilute with p Do not allow Methods ar Absorb with Use neutrali Dispose cor	ntaminated material as waste according to section 13.	
	quate ventilation.	
	quate ventilation. Action Criteria for Chemicals	
• Protective A		13 mg/m³
• Protective / • PAC-1: 7758-11-4	Action Criteria for Chemicals	13 mg/m³ 9.6 mg/m³
• Protective / • PAC-1: 7758-11-4 7778-77-0	Action Criteria for Chemicals Potassium phosphate dibasic	u
• Protective / • PAC-1: 7758-11-4 7778-77-0	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic	9.6 mg/m ³
• Protective // • PAC-1: 7758-11-4 7778-77-0 26628-22-8 • PAC-2:	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic	9.6 mg/m ³ 0.026 mg/m
 Protective A PAC-1: 7758-11-4 7778-77-0 26628-22-8 PAC-2: 7758-11-4 	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide	9.6 mg/m ³
Protective / PAC-1: 7758-11-4 7778-77-0 26628-22-8 PAC-2: 7758-11-4 7778-77-0	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide Potassium phosphate dibasic	9.6 mg/m ³ 0.026 mg/m ³ 140 mg/m ³
Protective / PAC-1: 7758-11-4 7778-77-0 26628-22-8 PAC-2: 7758-11-4 7778-77-0	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide Potassium phosphate dibasic Potassium phosphate, Monobasic Potassium phosphate, Monobasic	9.6 mg/m ³ 0.026 mg/m 140 mg/m ³ 110 mg/m ³
Protective / PAC-1: 7758-11-4 7778-77-0 26628-22-8 PAC-2: 7758-11-4 7778-77-0 26628-22-8 PAC-3:	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide Potassium phosphate dibasic Potassium phosphate, Monobasic Potassium phosphate, Monobasic	9.6 mg/m ³ 0.026 mg/m 140 mg/m ³ 110 mg/m ³
 Protective A PAC-1: 7758-11-4 7778-77-0 26628-22-8 PAC-2: 7758-11-4 7778-77-0 26628-22-8 PAC-3: 7758-11-4 	Action Criteria for Chemicals Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide Potassium phosphate dibasic Potassium phosphate, Monobasic Sodium azide Sodium azide	9.6 mg/m ³ 0.026 mg/m 140 mg/m ³ 110 mg/m ³ 0.29 mg/m

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

· Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

· Information about protection against explosions and fires: Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities Keep container tightly closed.

Store in accordance with information listed on the product insert.

· Storage: Store in accordance with information listed on the product insert.

- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.

(Contd. on page 5)

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(Contd. from page 4)

Trade name: ELISA Buffer Concentrate (10X)

- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Control parameters

Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

26628-22-8 Sodium azide

- REL Ceiling limit value: 0.3** mg/m³, 0.1* ppm *as HN3; **as NaN3; Skin
- TLV Ceiling limit value: 0.29** mg/m³, 0.11* ppm *as HN3 vapor **as NaN3, A4

• Additional information: The lists that were valid during the creation were used as basis.

• Exposure controls

- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 6)

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(Contd. from page 5)

Trade name: ELISA Buffer Concentrate (10X)

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

 Color: A Odor: C Storage Buffer Odor threshold: N Formulation 1 Formulation 3 Melting point/Melting range: U Boiling point/Boiling range: 10 	Fluid According to product specification Characteristic I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F) Not applicable.
 Color: A Odor: C Storage Buffer Odor threshold: N Formulation 1 Solution 3 Melting point/Melting range: U Boiling point/Boiling range: 10 	According to product specification Characteristic Not applicable. I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
 Odor: C Storage Buffer Odor threshold: N Formulation Melting point/Melting range: U Boiling point/Boiling range: 10 	Characteristic Not applicable. I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
 Storage Buffer Odor threshold: N Formulation 1 Storage Melting point/Melting range: U Boiling point/Boiling range: 10 	Not applicable. I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
Odor threshold: N Formulation 1 Solution Melting point/Melting range: U Boiling point/Boiling range: 10	I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
Odor threshold: N Formulation 1 Solution Melting point/Melting range: U Boiling point/Boiling range: 10	I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
 Formulation Second Second Second	I M phosphate solution containing 1% BSA, 4 M sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
• Melting point/Melting range: U • Boiling point/Boiling range: 10	sodium chloride, 10 mM EDTA and 0.1% sodium azide Jndetermined. I00 °C (212 °F)
Melting point/Melting range: U Boiling point/Boiling range: 10	Jndetermined. I00 °C (212 °F)
· Boiling point/Boiling range: 10	100 °C (212 °F)
· Flammability: N	
· Explosion limits:	
•	Not determined.
· Upper: N	Not determined.
Flash point: N	Not applicable.
-	Not determined.
pH-value at 20 °C (68 °F): 7	7
· Viscosity:	
	Not determined.
SOLUBILITY	
	Not determined.
Solubility in / Miscibility with	
• •	Fully miscible.
	Not determined.
	23 hPa (17.3 mm Hg)
· Vapor pressure:	
• •	l g/cm³ (8.345 lbs/gal)
	Not determined.
•	1,000 kg/m ³
	Not determined.
· ·	Not applicable.
· Other information	
· Appearance:	
	Liquid
Important information on protection of health	ւպսա
and environment, and on safety.	
· •	Product is not colfigniting
	Product is not selfigniting. Product does not present an explosion bezord
· Danger of explosion: P	Product does not present an explosion hazard.

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Trade name: ELISA Buffer Concentrate (10X)

	(Contd. f	rom page 6
· Solvent content:		
· Water:	58.6 %	
· VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gal	
· Solids content:	41.4 %	
· Change in condition		
· Evaporation rate	Not determined.	

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

ATE (Acute Toxicity Estimate)			
Oral	LD50	3,096 mg/kg	
Dermal	LD50	20,000 mg/kg	
7647-14-5 Sodium chloride			
Oral	LDLO	1,000 mg/kg (man)	
	TDLO	650 ml/kg (man)	
	LD50	4,000 mg/kg (mouse)	
		3,000 mg/kg (rat)	
	LD50	4 g/kg (mouse)	
Inhalative	LC50	320 mg/m³ (mouse)	
	TCLO	0.63 mg/m³ (human)	
	LCLO	29,300 mg/m³/7h (mouse)	
Irritation of skin	Irritation	500 mg/24h (rabbit) mild	
Irritation of eyes	Irritation	100 mg/24h (rabbit) moderate	
	Intraperitoneal LD50	2,602 mg/kg (mouse)	
	Subcutaneous LD50	31.6 mg/kg (rat)	
	Intravenous LD50	59.5 mg/kg (rat)	
	Data	15 mg/3D (human) mild	
	Subcutaneous LD50	3 g/kg (mouse)	

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Trade name: ELISA Buffer Concentrate (10X)

Oral	otassium phosphate, Mo	4,640 mg/kg (rat)			
	lbumin, bovine				
0010 10 074	Intraperitoneal TDLO	0.2 pph (mouse)			
26628-22-8 \$	Sodium azide				
Oral	LDLO	27 mg/kg (rat)			
	TDLO 3 ml/kg (woman)				
	LD50	27 mg/kg (rat)			
	Subcutaneous LD50	45,100 μg/kg (rat)			
Dermal	LD50	50 mg/kg (rat)			
		20 mg/kg (rabbit)			
Inhalative	LC50	37 mg/m³ (rat)			
	Subcutaneous LD50	- · · · ·			
	Interperitoneal LDLO				
	Intraperitoneal LD50				
	Subcutaneous LD50	45 mg/kg (rat)			
	Data	5,500 mg/kg (mouse)			
preparations: Irritant		gers according to internally approved calculation methods			
	ic categories				
	ational Agency for Rese	arch on Cancor)			
-	anonal / goney for recou				
IARC (Intern	ngredients is listed.				
IARC (Intern None of the i NTP (Nation	ngredients is listed. al Toxicology Program)				
IARC (Intern None of the i NTP (Nation	ngredients is listed.				
IARC (Intern None of the i NTP (Nation None of the i OSHA-Ca (C	ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He				
IARC (Intern None of the i NTP (Nation None of the i OSHA-Ca (C None of the i	ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He ngredients is listed.	alth Administration)			
IARC (Intern None of the i NTP (Nation None of the i OSHA-Ca (O None of the i Alternative s	ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He ngredients is listed. sources for toxicological	alth Administration)			

- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- · PBT: Not determined.
- · vPvB: Not determined.

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(Contd. from page 8)

Trade name: ELISA Buffer Concentrate (10X)

· Other adverse effects

· Additional ecological information:

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	not regulated
 UN proper shipping name DOT, ADN, IMDG, IATA 	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
 Packing group DOT, IMDG, IATA 	not regulated
· Environmental hazards:	Not applicable.
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	I I of Not applicable.
· Special precautions for user	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

26628-22-8 Sodium azide

• Section 313 (Specific toxic chemical listings):

26628-22-8 Sodium azide

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Trade name: ELISA Buffer Concentrate (10X)

	(Contd. from page 9	
· TSCA (Toxic Substances Control Act):		
7732-18-5 Water	ACTIVE	
7647-14-5 Sodium chloride	ACTIVE	
7758-11-4 Potassium phosphate dibasic	ACTIVE	
7778-77-0 Potassium phosphate, Monobasic	ACTIVE	
9048-46-8 Albumin, bovine	ACTIVE	
26628-22-8 Sodium azide	ACTIVE	
· Hazardous Air Pollutants		
None of the ingredients is listed.		
· Chemicals known to cause cancer:		
None of the ingredients is listed.		
• Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
 Chemicals known to cause reproductive toxicity for males: 		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value)		

26628-22-8 Sodium azide

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

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

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- Contact: -
- · Date of previous version 10/03/2024
- Date of preparation 10/08/2024
- Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

(Contd. on page 11)

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⁻ US -

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Trade name: ELISA Buffer Concentrate (10X)

(Contd. from page 10)

	(Contd. from page 10)
VOC: Volatile Organic Compounds (USA, EU)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
Skin irritation 2: Skin corrosion/irritation – Category 2	
Eye damage 1: Serious eye damage/eye irritation – Category 1	
Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) - Catego	ry 3
Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) - C	
* Data compared to the previous version altered.	5,
Data compared to the previous version altered.	110
	US



Safety Data Sheet

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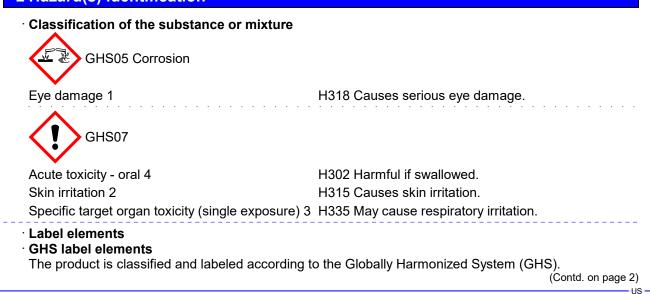
Revision date 10/08/2024

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1 Identification · Product identifier Trade name: Wash Buffer Concentrate (400X) · Other means of identification · Article number: 400062 · Application of the substance / the mixture This product is for research use - Not for human or veterinary diagnostic or therapeutic use. · Details of the supplier of the safety data sheet Manufacturer/Supplier: Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA · Information department: Product safety department · Emergency telephone number: During normal opening times: +1 (734) 971-3335

US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification



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Trade name: Wash Buffer Concentrate (400X)

. Hozard pictor	(Contd. from page 1)
· Hazard pictog	Idilis
GHS05 GHS	07
· Signal word D	anger
· Hazard-detern	nining components of labeling:
Potassium pho	
	sphate, Monobasic
Hazard statem	nents
H302 Harmful i	f swallowed.
H315 Causes s	skin irritation.
H318 Causes s	serious eye damage.
H335 May caus	se respiratory irritation.
Precautionary	statements
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection / face protection.
P301+P312	If swallowed: Call a poison center/doctor if you feel unwell.
P302+P352	If on skin: Wash with plenty of water.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P3	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international
	regulations.
Information pe	ertaining to particular dangers for man and environment:
Classification	system:
NFPA ratings	
	ealth = 3
	re = 0
V R	eactivity = 0
HMIS-ratings	(scale v - 4)
HEALTH *3	Health = *3
	Fire = 0

REACTIVITY 0 Reactivity = 0

· Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

• **vPvB:** Not applicable.

(Contd. on page 3)

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Trade name: Wash Buffer Concentrate (400X)

Classification according to (d)(1)(ii) of § 1910.12000
 The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
 Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 7758-11-4 RTECS: TC5580000	Potassium phosphate dibasic	53.0%
CAS: 7778-77-0 RTECS: TC6615500	Potassium phosphate, Monobasic	12.9%
· Other ingredients		
CAS: 7732-18-5 RTECS: ZC0110000	Water	34.1%

4 First-aid measures

· Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Immediately call a doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

Use fire fighting measures that suit the environment. A solid water stream may be inefficient.

• Special hazards arising from the substance or mixture No further relevant information available.

- Advice for firefighters
- · Protective equipment: No special measures required.

(Contd. on page 4)

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	precautions, protective equipment and emergency procedures tective equipment. Keep unprotected persons away.	
	nental precautions:	
	n plenty of water. ow to enter sewers/ surface or ground water.	
	and material for containment and cleaning up:	
Absorb w	ith liquid-binding material (sand, diatomite, acid binders, universal bind	lers, sawdust).
	alizing agent.	
	contaminated material as waste according to section 13. dequate ventilation.	
	e Action Criteria for Chemicals	
PAC-1:		
7758-11-4	Potassium phosphate dibasic	13 mg/m³
7778-77-0	Potassium phosphate, Monobasic	9.6 mg/m
PAC-2:		
7758-11-4	Potassium phosphate dibasic	140 mg/m
7778-77-0	Potassium phosphate, Monobasic	110 mg/m
· PAC-3:		
7758-11-4	Potassium phosphate dibasic	830 mg/m
	Potassium phosphate, Monobasic	630 mg/m
) Potassium phosphate. Monobasic	630 mg/m

7 Handling and storage

· Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

· Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities

- · Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

• Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Additional information: The lists that were valid during the creation were used as basis.

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(Contd. from page 4)

- · Exposure controls
- Appropriate engineering controls No further data; see section 7.
- · Personal protective equipment:
- General protective and hygienic measures:
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the skin.
 Avoid contact with the eyes and skin.
- Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- Physical state
- · Color:
- · Odor:
- Storage Buffer
- · Odor threshold:
- · Formulation
- · Melting point/Melting range:
- Boiling point/Boiling range:
- · Flammability:
- Explosion limits:
- · Lower:

Fluid Colorless Characteristic

Not applicable. Concentrated wash buffer Undetermined. 100 °C (212 °F) Not applicable.

Not determined.

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Trade name: Wash Buffer Concentrate (400X)

	(Contd. from page 5)
· Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value at 20 °C (68 °F):	7.4
· Viscosity:	
Kinematic:	Not determined.
· SOLUBILITY	
· Dynamic:	Not determined.
 Solubility in / Miscibility with 	
· Water:	Fully miscible.
 Partition coefficient (n-octanol/water): 	Not determined.
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
Vapor pressure:	
· Density at 20 °C (68 °F):	1.159 g/cm³ (9.67186 lbs/gal)
Relative density	Not determined.
· Bulk density:	1,159 kg/m³
· Vapor density	Not determined.
 Particle characteristics 	Not applicable.
· Other information	
· Appearance:	
· Form:	Liquid
Important information on protection of health	1
and environment, and on safety.	Due duet is wet a officialitie a
· Ignition temperature:	Product is not selfigniting.
 Danger of explosion: Solvent content: 	Product does not present an explosion hazard.
· Water:	34.1 %
	0.00 %
· VOC content:	
· Solids content:	0.0 g/l / 0.00 lb/gal 65.9 %
• Change in condition	03.9 /0
· Evaporation rate	Not determined.

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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(Contd. from page 6)

Acute toxicity:
LD/LC50 values that are relevant for classification:
ATE (Acute Toxicity Estimate)
Oral LD50 943 mg/kg
7778-77-0 Potassium phosphate, Monobasic
Oral LDLO 4,640 mg/kg (rat)
Primary irritant effect:
on the skin: Irritant to skin and mucous membranes.
on the eye: Strong irritant with the danger of severe eye injury. Sensitization: No sensitizing effects known.
Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for
preparations:
Harmful
Irritant Interactive effects No interactive effects between components are known.
Carcinogenic categories IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
NTP (National Toxicology Program)
None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.
Alternative sources for toxicological information
No non-standard sources for toxicological information where used.

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- **PBT:** Not determined.
- · vPvB: Not determined.
- · Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

(Contd. on page 8)

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Trade name: Wash Buffer Concentrate (400X)

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13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

4 4 1		P
14 I rans	horin	formation
I-F IT allo		ormation

14 manoport information	
· UN-Number · DOT, IMDG, IATA	not regulated
 · UN proper shipping name · DOT, ADN, IMDG, IATA 	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
 Packing group DOT, IMDG, IATA 	not regulated
· Environmental hazards:	Not applicable.
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	I of Not applicable.
· Special precautions for user	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

• Hazardous Air Pollutants

None of the ingredients is listed.

· Chemicals known to cause cancer:

None of the ingredients is listed.

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(Contd. from page 8)

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

• TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- · Date of previous version 10/03/2024
- Date of preparation 10/08/2024

· Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Acute toxicity - oral 4: Acute toxicity - Category 4 Skin irritation 2: Skin corrosion/irritation - Category 2 Eye damage 1: Serious eye damage/eye irritation - Category 1 Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) - Category 3 * * Data compared to the previous version altered.



Safety Data Sheet

acc. to OSHA HCS

Date of issue: 05/13/2025

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Page 1/10

1 Identification

- · Product identifier
- · Trade name: Resolvin D2 ELISA Standard
- · Other means of identification
- · Article number: 401076
- Application of the substance / the mixture This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture

GHS02 Flame

Flammable liquids 2 H225 Highly flammable liquid and vapor.

GHS07

H319 Causes serious eye irritation.

Label elements

Eye irritation 2A

- GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



· Signal word Danger

(Contd. on page 2)

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Trade name: Resolvin D2 ELISA Standard

	(Contd. from page 1)
 Hazard staten 	
H225 Highly fla	ammable liquid and vapor.
	serious eye irritation.
· Precautionary	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
1210	No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P242 P243	Take action to prevent static discharge.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P	353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use CO2, powder or water spray to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international
1 001	regulations.
· Information n	ertaining to particular dangers for man and environment:
	evetam.
· NFPA ratings	
NFFATalings	
н	ealth = 2
	ire = 3
	eactivity = 0
· HMIS-ratings	(scale 0 - 4)
HEALTH 2	Health = 2
	Fire = 3
	Reactivity = 0
	teactivity = 0
· Other hazards	
	, T and vPvB assessment
• PBT: Not appli	
· vPvB: Not app	
	according to (d)(1)(ii) of § 1910.1200
	er does not object to the classifications provided by importers or manufacturers of
precursor prod	
	therwise classified
	dverse physical or health effects known that are not covered by the hazard classes of the
Hazard Comm	unications Standard.
3 Compositio	n/information on ingredients
· Chemical cha	racterization: Mixtures
	Aixture of the substances listed below with nonhazardous additions.
Description.	(Contd. on page 3)
	()

(Contd. on page 3)

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Trade name: Resolvin D2 ELISA Standard

		(Contd. from page 2)
Dangerous compon	ents:	
CAS: 64-17-5 RTECS: KQ6300000	ethanol	99.9999%
· Other ingredients		
810668-37-2 Resolv	ו D2	0.0001%

4 First-aid measures

- · 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.
- After skin contact: Immediately rinse with water.
- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

Environmental pred	pment. Keep unprotected persons away.	
Dilute with plenty of v		
Do not allow to enter		
· Methods and material for containment and cleaning up:		
	nding material (sand, diatomite, acid binders	
	ed material as waste according to section 13	
Ensure adequate ver	ntilation. riteria for Chemicals	
	nteria for Chemicais	
PAC-1:		
64-17-5 ethanol		1,800 pp
PAC-2:		
64-17-5 ethanol		3300* pp
PAC-3:		
I AU U.		1
64-17-5 ethanol		15000* pp

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Trade name: Resolvin D2 ELISA Standard

· 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.

7 Handling and storage

· Precautions for safe handling

No special precautions are necessary if used correctly. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure. Keep away from sources of ignition. Take precautionary measures against static discharge.re.

- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- · Conditions for safe storage, including any incompatibilities
- Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

64-17-5 ethanol

- PEL Long-term value: 1900 mg/m³, 1000 ppm
- REL Long-term value: 1900 mg/m³, 1000 ppm
- TLV Short-term value: 1880 mg/m³, 1000 ppm
- A3

• Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

• Appropriate engineering controls No further data; see section 7.

· Personal protective equipment:

- General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

- Avoid contact with the eyes and skin.
- Breathing equipment: Not required.

(Contd. on page 5)

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(Contd. from page 4)

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

Information on basic physical and chemic	al properties	
General Information	1 Second	
Physical state	Liquid	
Color:	According to product specification	
Odor:	Alcohol-like	
Storage Buffer		
Odor threshold:	Not determined.	
Formulation		
Melting point/Melting range:	-114 °C (-173.2 °F)	
Boiling point/Boiling range:	78 °C (172.4 °F)	
Flammability:	Highly flammable.	
Explosion limits:		
Lower:	3.3 Vol %	
Upper:	19 Vol %	
Flash point:	13 °C (55.4 °F)	
Auto igniting:	425 °C (797 °F)	
Decomposition temperature:	Not determined.	
pH-value at 20 °C (68 °F):	7	
Viscosity:		
Kinematic:	Not determined.	
SOLUBILITY		
Dynamic at 20 °C (68 °F):	1.2 mPas	
Solubility in / Miscibility with		
Water at 20 °C (68 °F):	1,000 g/l	
Partition coefficient (n-octanol/water):	Not determined.	

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	(Contd. from page 5)
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
Vapor pressure at 50 °C (122 °F):	280 hPa (210 mm Hg)
Density at 20 °C (68 °F):	0.79 g/cm³ (6.59255 lbs/gal)
Relative density	Not determined.
· Vapor density	Not determined.
Particle characteristics	Not applicable.
· Other information	
· Appearance:	
· Form:	Liquid
 Important information on protection or 	fhealth
and environment, and on safety.	
 Ignition temperature: 	Product is not selfigniting.
 Danger of explosion: 	Product is not explosive. However, formation of
	explosive air/vapor mixtures are possible.
Solvent content:	
 Organic solvents: 	100.0 %
· VOC content:	100.00 %
	1,000.0 g/l / 8.35 lb/gal
Solids content:	0.0 %
Change in condition	
 Evaporation rate 	Not determined.

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- · **Incompatible materials:** No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:

64-17-5 ethanol

Oral	LD50	10,470 mg/kg (rat)
		10,470 mg/kg (rat) OECD Test Guideline 401
Inhalative	LC50/4 h	117–125 mg/l (rat) OECD 403 (rat)
		OECD 403 (rat)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.

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• Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Interactive effects No interactive effects between components are known.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

64-17-5 ethanol

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · **Bioaccumulative potential** No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- · UN-Number
- · DOT, IMDG, IATA

UN1170

(Contd. on page 8)

(Contd. from page 6)

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de name: Resolvin D2 ELISA Standard	
	(Contd. from pa
UN proper shipping name	
DOT IMDG	Ethanol solutions ETHANOL SOLUTION (ETHYL ALCOH SOLUTION)
ΙΑΤΑ	Ethanol solution
Transport hazard class(es)	
DOT	
RLMMARE LOUD	
Class	3 Flammable liquids
Label	3
IMDG, IATA	
· Class · Label	3 Flammable liquids 3
	5
Packing group DOT, IMDG, IATA	II
Environmental hazards:	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 5 L
	On cargo aircraft only: 60 L
IMDG	41
· Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2
hoa daaminoo (= d)	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
Remarks:	When sold in quantities of less than or equal to 1 or 1 g, with an Excepted Quantity Code of
	E1, E2, E4, or E5, this item meets the De Mini Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled Dangerous Goods/Excepted Quantity.
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code): EMS Number:	
	,

Revision date 05/13/2025

Trade name: Resolvin D2 ELISA Standard

Date of issue: 05/13/2025

(Contd.	from	page	8)
(Contu.	nom	paye	U)

 Stowage Category
 A

 UN "Model Regulation":
 UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

15 Regulatory information

 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
 Sara

None of the ingredients is listed. Section 313 (Specific toxic che	mical listings):	
None of the ingredients is listed.	inical listings).	
TSCA (Toxic Substances Cont 64-17-5 ethanol	rol Act):	AC
		AC
Hazardous Air Pollutants		
None of the ingredients is listed.		
Chemicals known to cause ca	icer:	
None of the ingredients is listed.		
Chemicals known to cause rep	roductive toxicity for females:	
None of the ingredients is listed.		
Chemicals known to cause rep	roductive toxicity for males:	
None of the ingredients is listed.		
Chemicals known to cause de	velopmental toxicity:	
64-17-5 ethanol		
Carcinogenic categories		
EPA (Environmental Protectio	n Agency)	
None of the ingredients is listed.		
TLV (Threshold Limit Value)		
64-17-5 ethanol		
NIOSH-Ca (National Institute for	or Occupational Safety and Health)	
None of the ingredients is listed.		

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

· Department issuing SDS: Environment protection department.

Date of issue: 05/13/2025

Revision date 05/13/2025

Trade name: Resolvin D2 ELISA Standard

	(Contd. from page 9)
· Contact: -	
· Date of preparation 05/13/2025	
Abbreviations and acronyms:	
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
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)	
NFPA: National Fire Protection Association (USA)	
HMIS: Hazardous Materials Identification System (USA)	
VOC: Volatile Organic Compounds (USA, EU)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
Flammable liquids 2: Flammable liquids – Category 2	
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A	



Safety Data Sheet

acc. to OSHA HCS

Date of issue: 05/13/2025

Revision date 05/13/2025

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1 Identification

- · Product identifier
- · Trade name: <u>Resolvin D</u>2 AChE Tracer
- · Other means of identification
- · Article number: 401120
- Application of the substance / the mixture This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- · Details of the supplier of the safety data sheet Manufacturer/Supplier: Cayman Chemical Co. 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- · Information department: Product safety department • Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CĂNADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



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GHS08 Health hazard	
Specific target organ toxicity (repeated exposure) 2	H373 May cause damage to organs through prolonged or repeated exposure.
GHS05 Corrosion	
Eye damage 1	H318 Causes serious eye damage.
GHS07	
Acute toxicity - oral 4	H302 Harmful if swallowed.
Skin irritation 2	H315 Causes skin irritation.
Specific target organ toxicity (single exposure) 3	H335 May cause respiratory irritation.
 Label elements GHS label elements The product is classified and labeled according to t 	he Globally Harmonized System (GHS). (Contd. on page 2)
	US

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. Hozard piotogra	(Contd. from page 1)				
	Hazard pictograms				
GHS05 GHS0	7 GHS08				
· Signal word Da	nger				
· Hazard-determi	ning components of labeling:				
Potassium phos	phate dibasic				
Sodium chloride					
Albumin, bovine					
Potassium phos	phate, Monobasic				
 Hazard stateme 	ints				
H302 Harmful if	swallowed.				
H315 Causes sk					
	rious eye damage.				
H335 May cause	e respiratory irritation.				
	e damage to organs through prolonged or repeated exposure.				
 Precautionary s 					
P260	Do not breathe dust/fume/gas/mist/vapors/spray.				
P264	Wash thoroughly after handling.				
P270	Do not eat, drink or smoke when using this product.				
P271	Use only outdoors or in a well-ventilated area.				
P280	Wear protective gloves / eye protection / face protection.				
P301+P312	If swallowed: Call a poison center/doctor if you feel unwell.				
P302+P352	If on skin: Wash with plenty of water.				
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.				
P305+P351+P33	38 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if				
	present and easy to do. Continue rinsing.				
P310	Immediately call a poison center/doctor.				
P321	Specific treatment (see on this label).				
P314	Get medical advice/attention if you feel unwell.				
P330	Rinse mouth.				
P362+P364	Take off contaminated clothing and wash it before reuse.				
P332+P313	If skin irritation occurs: Get medical advice/attention.				
P403+P233	Store in a well-ventilated place. Keep container tightly closed.				
P405	Store locked up.				
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.				
Information par	taining to particular dangers for man and environment:				
	 Classification system: NFPA ratings (scale 0 - 4) 				
	scale v - 4)				



Health = 3 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



(Contd. on page 3)

[–] US

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(Contd. from page 2)

Trade name: Resolvin D2 AChE Tracer

· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.1200

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 7647-14-5 RTECS: VZ4725000	Sodium chloride	47.27%	
CAS: 7758-11-4 RTECS: TC5580000	Potassium phosphate dibasic	25.97%	
CAS: 9048-46-8 RTECS: AY9296000	Albumin, bovine	19.54%	
CAS: 7778-77-0 RTECS: TC6615500	Potassium phosphate, Monobasic	6.29%	
CAS: 26628-22-8 RTECS: VY8050000	Sodium azide	0.2%	
· Other ingredients			
194491-31-1 EDTA, tetrasodium salt hydrate		0.72%	
Resolvin D2 AChE Tracer		0.01%	

4 First-aid measures

· Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a doctor.
- Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

(Contd. on page 4)

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Revision date 05/13/2025

Trade name: Resolvin D2 AChE Tracer

(Contd. from page 3)

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment. A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture
- 67-56-1During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
- Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

- Ensure adequate ventilation.
- Protective Action Criteria for Chemicals

· PAC-1:		
7758-11-4	Potassium phosphate dibasic	13 mg/m³
7778-77-0	77-0 Potassium phosphate, Monobasic 9.6 mg	
26628-22-8	-8 Sodium azide 0.026 r	
· PAC-2:		
7758-11-4	Potassium phosphate dibasic	140 mg/m³
7778-77-0	Potassium phosphate, Monobasic	110 mg/m³
26628-22-8	Sodium azide	0.29 mg/m³
· PAC-3:		
7758-11-4	Potassium phosphate dibasic	830 mg/m³
7778-77-0	Potassium phosphate, Monobasic	630 mg/m³
26628-22-8	Sodium azide	8.8 mg/m3
· Reference to other sections		

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.

7 Handling and storage

· Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

- Information about protection against explosions and fires:
- Keep respiratory protective device available.

(Contd. on page 5)

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Trade name: Resolvin D2 AChE Tracer

(Contd. from page 4)

• Conditions for safe storage, including any incompatibilities Keep container tightly closed.

Store in accordance with information listed on the product insert.

- Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

• Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

26628-22-8 Sodium azide

- REL Ceiling limit value: 0.3** mg/m³, 0.1* ppm *as HN3; **as NaN3; Skin
- TLV Ceiling limit value: 0.29** mg/m³, 0.11* ppm *as HN3 vapor **as NaN3, A4

• Additional information: The lists that were valid during the creation were used as basis.

• Exposure controls

- · Appropriate engineering controls No further data; see section 7.
- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

- Store protective clothing separately.
- Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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Trade name: Resolvin D2 AChE Tracer

• Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

Information on basic physical and chemic	al properties
General Information	
Physical state	Solid
Color:	According to product specification
Odor:	Characteristic
Storage Buffer	
Odor threshold:	Not determined.
Formulation	Lyophilized resolvin D2 (RvD2) acetylcholinester (AChE) tracer (a covalent conjugate of RvD2 AChE)
· Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Not determined.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
PH-value:	Not applicable.
Viscosity:	
Kinematic:	Not applicable.
SOLUBILITY	
Dynamic:	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not applicable.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Particle characteristics	Not determined.
Other information	
Appearance:	
Form:	Lyophilized powder
Important information on protection of he	
and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.

(Contd. from page 5)

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Trade name: Resolvin D2 AChE Tracer

		(Contd. from page 6)
· Solvent content:		
· VOC content:	0.00 %	
 Solids content: 	100.0 %	
 Change in condition 		
· Evaporation rate	Not applicable.	

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

·	Info	orm	nati	or	l on	toxico	logical	effects

• Acute toxicity:

ATE (Acute Toxicity Estimate)			
Oral	LD50	1,016 mg/kg	
Dermal	LD50	10,000 mg/kg	
7647-14-5 Sodiu	um chloride		
Oral	LDLO	1,000 mg/kg (man)	
	TDLO	650 ml/kg (man)	
	LD50	4,000 mg/kg (mouse)	
		3,000 mg/kg (rat)	
	LD50	4 g/kg (mouse)	
Inhalative	LC50	320 mg/m³ (mouse)	
	TCLO	0.63 mg/m³ (human)	
	LCLO	29,300 mg/m³/7h (mouse)	
Irritation of skin	Irritation	500 mg/24h (rabbit) mild	
Irritation of eyes	Irritation	100 mg/24h (rabbit) moderate	
	Intraperitoneal LD50	2,602 mg/kg (mouse)	
	Subcutaneous LD50	31.6 mg/kg (rat)	
	Intravenous LD50	59.5 mg/kg (rat)	
	Data	15 mg/3D (human) mild	
	Subcutaneous LD50	3 g/kg (mouse)	

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Trade name: Resolvin D2 AChE Tracer

(Contd. from page 7)				
9048-46-8 Albumin, bovine				
Intraperitoneal TDLO 0.2 pph (mouse)				
7778-77-0 Potas	sium phosphate, Mo	nobasic		
Oral	LDLO	4,640 mg/kg (rat)		
26628-22-8 Sod	ium azide			
Oral	LDLO	27 mg/kg (rat)		
	TDLO	3 ml/kg (woman)		
	LD50	27 mg/kg (rat)		
	Subcutaneous LD50	45,100 μg/kg (rat)		
Dermal	LD50	50 mg/kg (rat)		
		20 mg/kg (rabbit)		
Inhalative	LC50	37 mg/m³ (rat)		
		45,100 μg/kg (rat)		
	Interperitoneal LDLO			
	Intraperitoneal LD50	28 mg/kg (mouse)		
	Subcutaneous LD50	45 mg/kg (rat)		
	Data	5,500 mg/kg (mouse)		
• Primary irritant effect:				
• on the eye: Strong irritant with the danger of severe eye injury.				
• Sensitization: No sensitizing effects known.				
	ological information:			
	ows the following dan	gers according to internally approved calculation methods for		
preparations: Harmful				
Irritant				
· Interactive effects No interactive effects between components are known.				
· Carcinogenic categories				
•	onal Agency for Rese	arch on Cancer)		
None of the ingre	None of the ingredients is listed.			
· NTP (National Toxicology Program)				
None of the ingre	None of the ingredients is listed.			

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

• Alternative sources for toxicological information No non-standard sources for toxicological information where used.

12 Ecological information

· Toxicity

- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 9)

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(Contd. from page 8)

Trade name: Resolvin D2 AChE Tracer

· Other adverse effects

· Additional ecological information:

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number		
· DOT, IMDG, IATA	not regulated	
· UN proper shipping name		
DOT, IMDG, IATA	not regulated	
 Transport hazard class(es) 		
· DOT, ADN, IMDG, IATA		
Class	not regulated	
· Packing group		
· DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Transport in bulk according to Annex II of		
MARPOL73/78 and the IBC Code	Not applicable.	
 Special precautions for user 	Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

26628-22-8 Sodium azide

• Section 313 (Specific toxic chemical listings):

26628-22-8 Sodium azide

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Trade name: Resolvin D2 AChE Tracer

	Contd. from page 9)	
• TSCA (Toxic Substances Control Act):		
7647-14-5 Sodium chloride	ACTIVE	
7758-11-4 Potassium phosphate dibasic	ACTIVE	
9048-46-8 Albumin, bovine	ACTIVE	
7778-77-0 Potassium phosphate, Monobasic	ACTIVE	
26628-22-8 Sodium azide	ACTIVE	
· Hazardous Air Pollutants		
None of the ingredients is listed.		
· Chemicals known to cause cancer:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value)		
26628-22-8 Sodium azide	A4	
• NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· Chemical safety assessment: A Chemical Safety Assessment has not been carried ou	it.	

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- Date of previous version 02/18/2022
- Date of preparation 05/13/2025
- Abbreviations and acronyms:
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)

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Trade name: Resolvin D2 AChE Tracer

	(Contd. from page 10)
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
Acute toxicity - oral 4: Acute toxicity – Category 4	
Skin irritation 2: Skin corrosion/irritation – Category 2	
Eye damage 1: Serious eye damage/eye irritation – Category 1	
Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) - Categoria	orv 3
Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) - (
* Data compared to the previous version altered.	5alogol) _
Data compared to the previous version altered.	

US



Safety Data Sheet

acc. to OSHA HCS

Date of issue: 05/13/2025

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1 Identification

- Product identifier
- · Trade name: Resolvin D2 ELISA Antiserum
- · Other means of identification
- · Article number: 401122
- **Application of the substance / the mixture** This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: Cayman Chemical Co.
 1180 E. Ellsworth Rd. Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Choco Health hazard	
Specific target organ toxicity (repeated exposure)	2 H373 May cause damage to organs through prolonged or repeated exposure.
GHS05 Corrosion	
Eye damage 1	H318 Causes serious eye damage.
GHS07	
Acute toxicity - oral 4	H302 Harmful if swallowed.
Skin irritation 2	H315 Causes skin irritation.
Specific target organ toxicity (single exposure) 3	H335 May cause respiratory irritation.
 Label elements GHS label elements The product is classified and labeled according to 	the Globally Harmonized System (GHS). (Contd. on page 2)

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Trade name: Resolvin D2 ELISA Antiserum

	(Contd. from page 1
Hazard pictogr	ams
\land	
下第一	
GHS05 GHS	07 GHS08
Signal word Da	anger
	ining components of labeling:
Potassium phos	
Sodium chloride	
	sphate, Monobasic
Albumin, bovine	
Hazard statem	
H302 Harmful if	
H315 Causes s	
	erious eye damage.
	e respiratory irritation.
	e damage to organs through prolonged or repeated exposure.
Precautionary	
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection / face protection.
P301+P312	If swallowed: Call a poison center/doctor if you feel unwell.
P302+P352 P304+P340	If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing.
	38 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,
-303+-331+-3	present and easy to do. Continue rinsing.
- 310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention if you feel unwell.
2330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international
	regulations.
nformation pe	rtaining to particular dangers for man and environment:
Classification s	
NFPA ratings (



Health = 3 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH*3Health = *3FIRE0Fire = 0REACTIVITY0Reactivity = 0

(Contd. on page 3)

⁻US

Date of issue: 05/13/2025

Revision date 05/13/2025

(Contd. from page 2)

Trade name: Resolvin D2 ELISA Antiserum

· Other hazards

- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.1200

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous compor	ients:	
CAS: 7647-14-5 RTECS: VZ4725000	Sodium chloride	57.36%
CAS: 7758-11-4 RTECS: TC5580000	Potassium phosphate dibasic	31.51%
CAS: 7778-77-0 RTECS: TC6615500	Potassium phosphate, Monobasic	7.63%
CAS: 9048-46-8 RTECS: AY9296000	Albumin, bovine	2.37%
CAS: 26628-22-8 RTECS: VY8050000	Sodium azide	0.24%
 Other ingredients 		
194491-31-1 EDTA,	tetrasodium salt hydrate	0.88%
Resolvin D2 EIA Antiserum		0.01%

4 First-aid measures

· Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a doctor.
- Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

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5 Fire-fighting measures

- · Extinguishing media
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment. A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture
- 67-56-1During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
 Mount respiratory protective device.
 Wear protective equipment. Keep unprotected persons away.
- Environmental pressutional Do not allow to enter sowere/ surface or a
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
- Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

- Ensure adequate ventilation.
- Protective Action Criteria for Chemicals

· PAC-1:		
7758-11-4	Potassium phosphate dibasic	13 mg/m ³
7778-77-0	Potassium phosphate, Monobasic	9.6 mg/m³
26628-22-8	Sodium azide	0.026 mg/m ³
· PAC-2:		
7758-11-4	Potassium phosphate dibasic	140 mg/m³
7778-77-0	7778-77-0 Potassium phosphate, Monobasic 110 n	
26628-22-8	-8 Sodium azide 0.29 mg	
· PAC-3:		
7758-11-4	Potassium phosphate dibasic	830 mg/m³
7778-77-0	Potassium phosphate, Monobasic	630 mg/m³
26628-22-8	Sodium azide	8.8 mg/m3
· Poforonco f	o other sections	

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.

7 Handling and storage

· Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

- Information about protection against explosions and fires:
- Keep respiratory protective device available.

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• Conditions for safe storage, including any incompatibilities Keep container tightly closed.

Store in accordance with information listed on the product insert.

- Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

• Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

26628-22-8 Sodium azide

- REL Ceiling limit value: 0.3** mg/m³, 0.1* ppm *as HN3; **as NaN3; Skin
- TLV Ceiling limit value: 0.29** mg/m³, 0.11* ppm *as HN3 vapor **as NaN3, A4

• Additional information: The lists that were valid during the creation were used as basis.

• Exposure controls

- Appropriate engineering controls No further data; see section 7.
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

- Store protective clothing separately.
- Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties Information on basic physical and chemical properties · General Information · Physical state Solid · Color: According to product specification · Odor: Characteristic Storage Buffer · Odor threshold: Not determined. · Formulation Lyophilized resolvin D2 (RvD2) polyclonal antiserum • Melting point/Melting range: Undetermined. · Boiling point/Boiling range: Undetermined. · Flammability: Not determined. · Explosion limits: · Lower: Not determined. · Upper: Not determined. Flash point: Not applicable. · Decomposition temperature: Not determined. pH-value: Not applicable. · Viscosity: · Kinematic: Not applicable. · SOLUBILITY · Dynamic: Not applicable. · Solubility in / Miscibility with · Water: Soluble. Not determined. · Partition coefficient (n-octanol/water): · Vapor pressure: Not applicable. · Vapor pressure: Density: Not determined. · Relative density Not determined. · Vapor density Not applicable. Particle characteristics Not determined. · Other information · Appearance: · Form: lyophilized · Important information on protection of health

and environment, and on safety.

Ignition temperature:
 Danger of explosion:

· Solvent content:

· VOC content:

Product does not present an explosion hazard.

Product is not selfigniting.

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- Solids content:
- Change in condition
 Evaporation rate

Not applicable.

100.0 %

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
 Conditions to avoid No further relevant information available.
- Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
 Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

• Acute toxicity:

ATE (Acute Toxicity Estimate)			
Oral	LD50	1,305 mg/kg	
Dermal	LD50	8,333 mg/kg	
7647-14-5 Sodiı	um chloride		
Oral	LDLO	1,000 mg/kg (man)	
	TDLO	650 ml/kg (man)	
	LD50	4,000 mg/kg (mouse)	
		3,000 mg/kg (rat)	
	LD50	4 g/kg (mouse)	
Inhalative	LC50	320 mg/m ³ (mouse)	
	TCLO	0.63 mg/m ³ (human)	
	LCLO	29,300 mg/m³/7h (mouse)	
Irritation of skin	Irritation	500 mg/24h (rabbit) mild	
Irritation of eyes	Irritation	100 mg/24h (rabbit) moderate	
	Intraperitoneal LD50	2,602 mg/kg (mouse)	
	Subcutaneous LD50	31.6 mg/kg (rat)	
	Intravenous LD50	59.5 mg/kg (rat)	
	Data	15 mg/3D (human) mild	
	Subcutaneous LD50	3 g/kg (mouse)	
7778-77-0 Potas	sium phosphate, Mo	nobasic	
Oral	LDLO	4,640 mg/kg (rat)	

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	Intraperitoneal TDLO	0.2 pph (mouse)
26628-22-8 \$	Sodium azide	
Oral	LDLO	27 mg/kg (rat)
	TDLO	3 ml/kg (woman)
	LD50	27 mg/kg (rat)
	Subcutaneous LD50	45,100 μg/kg (rat)
Dermal	LD50	50 mg/kg (rat)
		20 mg/kg (rabbit)
Inhalative	LC50	37 mg/m³ (rat)
	Subcutaneous LD50	45,100 μg/kg (rat)
	Interperitoneal LDLO	30 mg/kg (rat)
	Intraperitoneal LD50	
	Subcutaneous LD50	45 mg/kg (rat)
	Data	5,500 mg/kg (mouse)
Harmful Irritant		
		ts between components are known.
Carcinogeni	c categories	
Carcinogeni IARC (Intern	c categories ational Agency for Rese	
Carcinogeni IARC (Intern None of the in	c categories ational Agency for Rese ngredients is listed.	
Carcinogeni IARC (Intern None of the in NTP (Nation	ic categories ational Agency for Rese ngredients is listed. al Toxicology Program)	
Carcinogeni IARC (Intern None of the in NTP (Nation	c categories ational Agency for Rese ngredients is listed.	
Carcinogeni IARC (Intern None of the in NTP (Nation None of the in	ic categories ational Agency for Rese ngredients is listed. al Toxicology Program)	arch on Cancer)
Carcinogeni IARC (Intern None of the in NTP (Nation None of the in OSHA-Ca (O None of the in	ic categories ational Agency for Rese ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He ngredients is listed.	arch on Cancer) alth Administration)
Carcinogeni IARC (Intern None of the in NTP (Nation None of the in OSHA-Ca (O None of the in Alternative s	ic categories ational Agency for Rese ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He ngredients is listed. Sources for toxicological	arch on Cancer) alth Administration) information
Carcinogeni IARC (Intern None of the in NTP (Nation None of the in OSHA-Ca (O None of the in Alternative s	ic categories ational Agency for Rese ngredients is listed. al Toxicology Program) ngredients is listed. Occupational Safety & He ngredients is listed. Sources for toxicological	arch on Cancer) alth Administration)

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

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• Other adverse effects

· Additional ecological information:

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	not regulated
 UN proper shipping name DOT, IMDG, IATA 	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
 Packing group DOT, IMDG, IATA 	not regulated
· Environmental hazards:	Not applicable.
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	II of Not applicable.
· Special precautions for user	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

26628-22-8 Sodium azide

• Section 313 (Specific toxic chemical listings):

26628-22-8 Sodium azide

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· TSCA (Tox	ic Substances Control Act):	
7647-14-5	Sodium chloride	ACTIV
7758-11-4	Potassium phosphate dibasic	ACTIV
	Potassium phosphate, Monobasic	ACTIV
	Albumin, bovine	ACTIV
26628-22-8	Sodium azide	ACTIV
· Hazardous	Air Pollutants	
None of the	ingredients is listed.	
· Chemicals	known to cause cancer:	
None of the	ingredients is listed.	
· Chemicals	known to cause reproductive toxicity for females:	
None of the	ingredients is listed.	
· Chemicals	known to cause reproductive toxicity for males:	
None of the	ingredients is listed.	
· Chemicals	known to cause developmental toxicity:	
None of the	ingredients is listed.	
· Carcinoge	nic categories	
· EPA (Envir	onmental Protection Agency)	
None of the	ingredients is listed.	
· TLV (Thres	hold Limit Value)	
26628-22-8	Sodium azide	A
· NIOSH-Ca	(National Institute for Occupational Safety and Health)	· · ·
None of the	ingredients is listed.	
Chemical s	afety assessment: A Chemical Safety Assessment has not beer	n carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- · Department issuing SDS: Environment protection department.
- · Contact: -
- Date of previous version 02/18/2022
- Date of preparation 05/13/2025
- Abbreviations and acronyms:
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)

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LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit REL: Recommended Exposure Limit Acute toxicity - oral 4: Acute toxicity – Category 4 Skin irritation 2: Skin corrosion/irritation – Category 1 Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3 Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) – Category 3	ntd. from page 10) ory 2
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