

Lowry Assay Kit

Article number : 39236

Safety Data Sheets of the following Kit Components:

11926	Albumin bovine Fraction V, Protease-free
39236.A	Solution A
39236.B	Solution B
39236.C	Solution C

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/15/2023

Reviewed on 12/15/2023

1 Identification

- **Product identifier**
- **Trade name:** Albumin bovine Fraction V, Protease-free
- **Article number:** 11926
- **CAS Number:**
9048-46-8
- **EC number:**
232-936-2
- **Application of the substance / the mixture:** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety Department Tel.: +49 6221 13840-35
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



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:** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - Assessment not available.
- **vPvB:** vPvB - Assessment not available.

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Trade name: Albumin bovine Fraction V, Protease-free

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3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description:**
9048-46-8 Albumins, blood serum
- **Identification number(s):**
- **EC number:** 232-936-2
- **Description:**
- **MW:** ca. 67000

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:**
Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. In case of complaints, consult an ophthalmologist.
- **After swallowing:**
Wash out mouth. Drink plenty of water and supply fresh air. Consult doctor if you feel unwell.
- **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**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Do not inhale dusts.
Avoid contact with eyes and skin.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Dispose contaminated material as waste according to section 13.
Pick up mechanically.
- **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.

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Trade name: *Albumin bovine Fraction V, Protease-free*

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See Section 13 for disposal information.

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7 Handling and storage

- **Precautions for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Storage at +2 to +8 °C
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store container tightly closed and dry.
Protect from exposure to the light.
- **Specific end use(s):** No further relevant information available.

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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**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Chloroprene rubber, CR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

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Trade name: Albumin bovine Fraction V, Protease-free

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information:

· Color:	oyster white
· Odor:	Characteristic
· Odor threshold:	Not determined.
· Melting point/Melting range:	No information available
· Boiling point/Boiling range:	No information available
· Flammability (solid, gaseous):	No information available
· Explosion limits:	
· Lower:	No information available
· Upper:	No information available
· Flash point:	No information available
· Decomposition temperature:	No information available
· pH-value:	6.8-7.2
· Viscosity:	
· Kinematic viscosity:	No information available
· Dynamic viscosity:	No information available
· Solubility in / Miscibility with:	
· Water:	Soluble.
· Partition coefficient (n-octanol/water):	No information available
· Vapor pressure:	No information available
· Vapor pressure:	
· Density:	No information available
· Relative density:	No information available

· Other information

· Appearance:

· Form: lyophilisate

· Important information on protection of health and environment, and on safety:

· Danger of explosion: The product is not explosive, but the formation of explosive dust/air mixtures is possible.

· Molecular weight ~67,000 g/mol

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:

As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.

· Conditions to avoid:

High temperatures
exposure to the light

· Incompatible materials: Avoid contact with strong oxidizers.

· Hazardous decomposition products: In case of fire: see section 5

11 Toxicological information

· Information on toxicological effects

· Acute toxicity: Based on available data, the classification criteria are not met.

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

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

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- **Sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure:**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure:**
Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **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.

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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:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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14 Transport information

- | | |
|-------------------------------------|------|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |

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· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **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** Substance is not listed.
- **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.
- **Carcinogenicity 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.
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

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

- **Department issuing SDS:** Product Safety Department
- **Contact:** +49 6221 13840-35
- **Date of preparation / last revision** 12/15/2023

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 PBT: persistent, bioaccumulative, toxic substance (REACH)
 vPvB: very persistent, very bioaccumulative substance (REACH)
 REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
 CLP: Regulation on classification, labelling and packaging of substances and mixtures
 bw: body weight
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**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*

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Safety Data Sheet

acc. to OSHA HCS

Printing date 12/11/2023

Reviewed on 12/11/2023

1 Identification

- **Product identifier**
- **Trade name:** Solution A
- **Article number:** 39236.A
- **CAS Number:** -
- **Application of the substance / the mixture:** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety Department Tel.: +49 6221 13840-35
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - Assessment not available.
- **vPvB:** vPvB - Assessment not available.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** aqueous solution
- **Dangerous components:** Void

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Trade name: Solution A

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· **Additional information:**

The product does not contain any other substances that have to be declared according to REACH (Regulation (EC) No. 1907/2006).

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:**

Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. In case of complaints, consult an ophthalmologist.

· **After swallowing:** Rinse out mouth. In case of complaints, consult 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:**

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:** Wear self-contained breathing apparatus.

· **Additional information**

Collect contaminated extinguishing agent separately, must not enter the sewage system.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Avoid contact with eyes and skin.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up**

Dispose contaminated material as waste according to section 13.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

All components have the value 12 mg/m³.

· **PAC-2:**

All components have the value 32 mg/m³.

· **PAC-3:**

All components have the value 190 mg/m³.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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Trade name: Solution A

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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:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Storage at +2 to +8 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store container tightly closed and dry.
- **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**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **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:**
Natural rubber, NR
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.
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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Natural rubber, NR
Nitrile rubber, NBR
- **Eye protection:** Safety glasses

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Reviewed on 12/11/2023

Trade name: Solution A

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information:

· Color:	bluish
· Odor:	Odorless
· Odor threshold:	Not determined.
· Melting point/Melting range:	No information available
· Boiling point/Boiling range:	No information available
· Flammability (solid, gaseous):	The product is not flammable
· Explosion limits:	
· Lower:	No information available
· Upper:	No information available
· Flash point:	Not applicable.
· Decomposition temperature:	No information available
· pH-value:	No information available
· Viscosity:	
· Kinematic viscosity:	No information available
· Dynamic viscosity:	No information available
· Solubility in / Miscibility with:	
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	No information available
· Vapor pressure:	No information available
· Vapor pressure:	
· Density:	No information available
· Relative density:	No information available

· Other information

· Appearance:	
· Form:	Solution
· Important information on protection of health and environment, and on safety:	
· Danger of explosion:	Product does not present an explosion hazard.
· VOC %:	
· VOC content:	0.00 %

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

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Reviewed on 12/11/2023

Trade name: Solution A

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- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure:**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure:**
Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **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)
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None of the ingredients is listed.

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12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** Harmful to aquatic organisms, with long lasting effects.
- **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:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|----------------------------------|------|
| · UN-Number | |
| · ADR, IMDG, IATA | Void |
| · UN proper shipping name | |
| · ADR, IMDG, IATA | Void |

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Trade name: Solution A

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- | | |
|--|--|
| · Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
| · Class: | Void |
| · Label: | - |
| · Packing group | |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards | |
| · Marine pollutant: | Yes |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |

15 Regulatory information

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

- **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):**

None of the ingredients is listed.

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

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.

- **Carcinogenicity 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.

- **GHS label elements** Void

- **Hazard pictograms** Void

- **Signal word** Void

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Reviewed on 12/11/2023

Trade name: Solution A

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- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

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

- **Department issuing SDS:** Product Safety Department

- **Contact:** +49 6221 13840-35

- **Date of preparation / last revision** 12/11/2023

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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)

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

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/12/2023

Reviewed on 12/12/2023

1 Identification

- **Product identifier**
- **Trade name:** Solution B
- **Article number:** 39236.B
- **Application of the substance / the mixture:** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety Department Tel.: +49 6221 13840-35
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - Assessment not available.
- **vPvB:** vPvB - Assessment not available.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** aqueous solution

Dangerous components:

497-19-8	sodium carbonate	1-3%
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· **Additional information:**

The product does not contain any other substances that have to be declared according to REACH (Regulation (EC) No. 1907/2006).

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:**

Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. Consult an ophthalmologist immediately.

· **After swallowing:**

Rinse mouth immediately. Drink plenty of water and fresh air. Call a doctor immediately.

Do not induce vomiting!

· **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:** Wear self-contained breathing apparatus.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Avoid contact with eyes and skin.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up**

Dispose contaminated material as waste according to section 13.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

497-19-8	sodium carbonate	7.6 mg/m ³
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· **PAC-2:**

497-19-8	sodium carbonate	83 mg/m ³
----------	------------------	----------------------

· **PAC-3:**

497-19-8	sodium carbonate	500 mg/m ³
----------	------------------	-----------------------

· **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.

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7 Handling and storage

- **Precautions for safe handling:**
 Avoid contact with eyes and skin.
 Ensure good ventilation/exhaustion at the workplace.
 No special measures required.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 Storage at +2 to +8 °C
 Unsuitable material for receptacle: aluminium.
 Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store container tightly closed and dry.
- **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**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Store protective clothing separately.
 Immediately remove all soiled and contaminated clothing.
 Avoid contact with the eyes and skin.
 Wash hands before breaks and at the end of work.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **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.
 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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
 Natural rubber, NR
 Nitrile rubber, NBR
- **Eye protection:** Safety glasses

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information:

· Color:	Colorless
· Odor:	Odorless
· Odor threshold:	Not determined.
· Melting point/Melting range:	No information available
· Boiling point/Boiling range:	No information available
· Flammability (solid, gaseous):	The product is not flammable
· Explosion limits:	
· Lower:	No information available
· Upper:	No information available
· Flash point:	Not applicable.
· Decomposition temperature:	No information available
· pH-value:	No information available
· Viscosity:	
· Kinematic viscosity:	No information available
· Dynamic viscosity:	No information available
· Solubility in / Miscibility with:	
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	No information available
· Vapor pressure:	No information available
· Vapor pressure:	
· Density:	No information available
· Relative density:	No information available

· Other information

· Appearance:	
· Form:	Solution
· Important information on protection of health and environment, and on safety:	
· Danger of explosion:	Product does not present an explosion hazard.
· VOC %:	
· VOC content:	0.00 %

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 further relevant information available.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** various plastics, metals, metal alloys
- **Hazardous decomposition products:** No further relevant information available.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

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- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure:**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure:**
Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **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.

*

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:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water

*

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

*

14 Transport information

- | | |
|----------------------------------|------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Void |

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- | | |
|--|--|
| · Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Void |
| · Label | - |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Hazard identification number (Kemler code): | - |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |

15 Regulatory information

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

· **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):**

497-19-8 sodium carbonate

ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

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.

· **Carcinogenicity 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.

· **GHS label elements** Void

· **Hazard pictograms** Void

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- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

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

- **Department issuing SDS:** Product Safety Department

- **Contact:** +49 6221 13840-35

- **Date of preparation / last revision** 12/12/2023

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

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

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acc. to OSHA HCS

Printing date 12/15/2023

Reviewed on 12/12/2023

1 Identification

- **Product identifier**
- **Trade name:** Solution C
- **Article number:** 39236.C
- **Application of the substance / the mixture:** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety Department Tel.: +49 6221 13840-35
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**
- | | | |
|------------|----|----------------|
| HEALTH | *1 | Health = *1 |
| FIRE | 0 | Fire = 0 |
| REACTIVITY | 0 | Reactivity = 0 |

- **Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - Assessment not available.
- **vPvB:** vPvB - Assessment not available.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** aqueous solution

Dangerous components:

10377-48-7	lithium sulfate	5-15%
7647-01-0	hydrogen chloride	2.5-7%

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7664-38-2	phosphoric acid 85 %	2.5-7%
10213-10-2	Disodium wolframate dihydrate	1-3%

· **Additional information:**

The product does not contain any other substances that have to be declared according to REACH (Regulation (EC) No. 1907/2006).

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:**

Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. Consult an ophthalmologist immediately.

· **After swallowing:**

Rinse out mouth. Call a doctor immediately.

Do not induce vomiting!

· **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**

In case of fire, the following can be released:

Sulfur oxides (SO_x)

Phosphorous oxides (e.g. P₂O₅)

Hydrogen chloride (HCl)

· **Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Ensure adequate ventilation

Avoid contact with eyes and skin.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up**

Dispose contaminated material as waste according to section 13.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

10377-48-7	lithium sulfate	1.8 mg/m ³
7647-01-0	hydrogen chloride	1.8 ppm
7664-38-2	phosphoric acid 85 %	3 mg/m ³
10213-10-2	Disodium wolframate dihydrate	5.4 mg/m ³

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· **PAC-2:**

10377-48-7	lithium sulfate	20 mg/m ³
7647-01-0	hydrogen chloride	22 ppm
7664-38-2	phosphoric acid 85 %	30 mg/m ³
10213-10-2	Disodium wolframate dihydrate	59 mg/m ³

· **PAC-3:**

10377-48-7	lithium sulfate	120 mg/m ³
7647-01-0	hydrogen chloride	100 ppm
7664-38-2	phosphoric acid 85 %	150 mg/m ³
10213-10-2	Disodium wolframate dihydrate	360 mg/m ³

· **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.

No special measures required.

· **Information about protection against explosions and fires:** No special measures required.· **Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Storage at +2 to +8 °C

· **Information about storage in one common storage facility:** Not required.· **Further information about storage conditions:** Store container tightly closed and dry.· **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 constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

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

7647-01-0 hydrogen chloride (2.5-7%)PEL Ceiling limit value: 7 mg/m³, 5 ppmREL Ceiling limit value: 7 mg/m³, 5 ppm

TLV Ceiling limit value: 2 ppm

A4

7664-38-2 phosphoric acid 85 % (2.5-7%)PEL Long-term value: 1 mg/m³REL Short-term value: 3 mg/m³Long-term value: 1 mg/m³TLV Short-term value: 3 mg/m³Long-term value: 1 mg/m³· **Additional information:** The lists that were valid during the creation were used as basis.

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- **Exposure controls**
- **Additional information about design of technical systems:** 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 eyes and skin.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **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.
 - 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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
 - Fluorocarbon rubber (Viton)
 - Nitrile rubber, NBR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

*

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information:**
- **Color:** Yellow
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **Melting point/Melting range:** No information available
- **Boiling point/Boiling range:** No information available
- **Flammability (solid, gaseous):** The product is not flammable
- **Explosion limits:**
- **Lower:** No information available
- **Upper:** No information available
- **Flash point:** Not applicable.
- **Decomposition temperature:** No information available
- **pH-value:** No information available
- **Viscosity:**
- **Kinematic viscosity:** No information available
- **Dynamic viscosity:** No information available
- **Solubility in / Miscibility with:**
- **Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.

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- | | |
|--|---|
| · Vapor pressure: | No information available |
| · Vapor pressure: | |
| · Density: | No information available |
| · Relative density: | No information available |
| · Other information | |
| · Appearance: | |
| · Form: | Solution |
| · Important information on protection of health and environment, and on safety: | |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · VOC %: | |
| · VOC content: | 0.00 % |

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 further relevant information available.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Avoid contact with: metals
- **Hazardous decomposition products:** In case of fire: see section 5

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure:**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure:**
Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7647-01-0 hydrogen chloride

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

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- **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:**
- Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Dispose of in accordance with official regulations.
 - **Uncleaned packagings:**
 - **Recommendation:**
- Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|--|---|
| · UN-Number | UN3264 |
| · DOT | Void |
| · ADR, IMDG, IATA | Void |
| · UN proper shipping name | Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Phosphoric acid solution) |
| · DOT | 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION) |
| · ADR | Void |
| · IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT | 8 Corrosive substances |
| · Class | 8 |
| · Label | |
| · ADR, IMDG, IATA | Void |
| · Class: | - |
| · Label: | |
| · Packing group | III |
| · DOT | Void |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards | No |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Hazard identification number (Kemler code): | - |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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Trade name: Solution C

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· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION), 8, III

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

7647-01-0	hydrogen chloride
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· **Section 313 (Specific toxic chemical listings):**

7647-01-0	hydrogen chloride
-----------	-------------------

7664-38-2	phosphoric acid 85 %
-----------	----------------------

· **TSCA (Toxic Substances Control Act):**

10377-48-7	lithium sulfate	ACTIVE
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7647-01-0	hydrogen chloride	ACTIVE
-----------	-------------------	--------

7664-38-2	phosphoric acid 85 %	ACTIVE
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· **Hazardous Air Pollutants**

7647-01-0	hydrogen chloride
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· **Proposition 65**

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.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

7647-01-0	hydrogen chloride	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

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

US

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16 Other information

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

· **Department issuing SDS:** Product Safety Department

· **Contact:** +49 6221 13840-35

· **Date of preparation / last revision** 12/15/2023

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

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