

**SAFETY DATA SHEET**

Revision Date 5.2.2022

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Product Identification****Product Name:** anti-Osteocalcin (1-49); purified polyclonal rabbit IgG.**Product Code:** T-4743**CAS-No:** N/A**1.2 Company Identification**Chemoforma AG
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1.3 Recommended use and Restrictions on use

Laboratory reagent, Research Use Only

2. HAZARD(S) IDENTIFICATION**2.1 Classification of the mixture****GHS-US Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Serious eye damage/eye irritation 2A, H319

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram:

Signal Word: Warning

Hazard statements: H319 Causes serious eye irritation

Precautionary statements: P264 Wash exposed skin thoroughly after handling.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
P305/P351/P338 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.**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**

Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Rapidly absorbed through skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substance:** Not applicable**3.2 Mixture:**

| Principal Components | Concentration | CAS No | GHS-US Classification |
|------------------------------------|--|-----------|--|
| Sodium Phosphate dibasic anhydrous | 31% w/w powder | 7558-79-4 | Serious eye damage/eye irritation 2B H320 |
| Sodium Chloride | 7.8% w/w powder | 7647-14-5 | Serious eye damage/eye irritation 2A H319 |
| Thimerosal | 0.02% w/v in solution before lyophilization / after reconstitution | 54-64-8 | Acute Tox.2; Acute Tox 1; STOT RE2; Aquatic Acute 1; Aquatic Chronic 1; H300, H310, H330, H373, H400, H410 |
| Bovine Serum Albumin | 53.8% w/w powder | 9048-46-8 | Not classified |



| | | | |
|--|-----------------|------------|----------------|
| Sodium Phosphate monobasic monohydrate | 7.1% w/w powder | 10049-21-5 | Not classified |
|--|-----------------|------------|----------------|

4. FIRST-AID MEASURES

4.1 Description of First Aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: Supply fresh air breathing. Allow the victim to rest and keep in position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Rinse mouth with water. Consult a poison center or a physician.

In case of skin contact: Immediately remove all contaminated clothing. Wash off with soap and plenty of water. Consult a poison center or physician.

In case of eye contact: Rinse cautiously for several minutes under running water. Consult a physician.

4.2 Important Symptoms/Effects, acute and delayed

See section 2.2 hazard statements.

4.3 Required treatment

Obtain medical assistance.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing agents

Suitable extinguishing agents: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Sulfur oxides, sodium oxides, mercury/mercury oxides.

5.3 Advice for firefighters

Protective equipment and precautions: Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Personal precautions, protective equipment, emergency procedures: Wear respiratory protection, safety glasses, gloves, protective clothing including a full length lab coat (see section 8). Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate unnecessary personnel, upwind of spill/release.

6.1.2 For emergency responders

Personal precautions, protective equipment, emergency procedures: Equip cleanup crew with proper protection, including: respirator, chemical safety goggles, rubber boots, rubber gloves. Ventilate area, mechanical exhaust. Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 Methods and material for containment and cleanup

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Blot spills with inert solids, such as sand, clay, diatomaceous earth, acid binders, universal binders, or sawdust as soon as possible. Collect spillage and absorbent material and place in closed container, store away from other materials, for proper disposal.

Wash spill site thoroughly and discard contaminated cleanup items in closed container for proper disposal.

6.4 Disposal

Discard in accordance with local regulation.

6.5 References to other sections

See Section 8 Exposure Controls and personal protection.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling and hygiene

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide ventilation in work area to prevent vapor buildup. Do not breathe dust, mist, vapors, spray. Wash hands and other exposed skin with mild soap and water before eating, drinking, or smoking and when leaving work. Wash contaminated clothing before reusing.

7.2 Conditions for safe storage, and incompatibilities

Keep container closed when not in use. Store in refrigerator, or freezer at -20°C after reconstitution for long term storage. Do not store near acids. Avoid sources of ignition. Comply with applicable regulations.

7.3 Specific end use(s)

Apart from uses listed in Section 1.3, no other specific uses are stipulated.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Components with workplace control parameters:

| Component | CAS-No. | Value | Control parameters | Basis |
|------------|---------|---|--------------------|---|
| Thimerosal | 54-64-8 | TWA | 0.050mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | Remarks | Potential for dermal absorption | | |
| | | C | 0.100mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | Potential for dermal absorption | | |
| | | TWA | 0.100mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Kidney damage Danger of cutaneous absorption varies | | |
| | | TWA | 0.010mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Kidney damage Peripheral Nervous System impairment Danger of cutaneous absorption varies | | |
| | | STEL | 0.030mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | | Central Nervous System impairment Kidney damage Peripheral Nervous System impairment Danger of cutaneous absorption varies | | |

8.2 Exposure Controls

Appropriate engineering controls: Avoid contact with skin, eyes, and clothing. General industrial hygiene practice. Emergency eye wash fountains or eye wash bottles and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment: Avoid all unnecessary exposure by using the following equipment:

Hand protection: Wear protective gloves.

Eye/face protection: Chemical goggles or face shield.

Skin and body protection: Wear suitable protective clothing, such as a laboratory coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: no information.

Other information: Do not eat, drink, or smoke during use. Wash hands before breaks and after handling the product.

Control of environmental exposure: Prevent leakage and spillage if safe to do so.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|--|----------------------------|
| Physical state: | powder, white to off-white |
| Odor: | No data available |
| Odor threshold: | No data available |
| pH: | No data available |
| Relative evaporation rate: | No data available |
| Melting point: | No data available |
| Freezing point: | No data available |
| Boiling point: | No data available |
| Flash point: | No data available |
| Self-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Flammability (solid, gas): | No data available |
| Vapor Pressure: | No data available |
| Relative vapor density at 20°C: | No data available |
| Relative density: | No data available |
| Density: | No data available |



| | |
|------------------------------|-------------------|
| Solubility: | Soluble in water |
| Log Pow: | No data available |
| Log Kow: | No data available |
| Viscosity, kinematic: | No data available |
| Viscosity, dynamic: | No data available |
| Explosive properties: | No data available |
| Oxidizing properties: | No data available |
| Explosive limits: | No data available |

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid mixtures/contact with incompatible materials (section 10.5). Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials

Acids, metals, halogenated hydrocarbon, acid chlorides, hydrazine, dimethyl sulfate, inorganic acid chlorides, strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: no data available.

In the event of fire, see section 5.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral – rat – 75 mg/kg (thimerosal)

LD50 Oral – rat – 17g/kg (sodium phosphate dibasic anhydrous)

Inhalation: No data available.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Nutritional and Gross

Metabolic: changes in metabolic acidosis.

Behavioral: Ataxia.

LD50 Subcutaneous – rat – 98 mg/kg

Skin corrosion

No data available (thimerosal). May cause skin irritation (sodium phosphate dibasic anhydrous).

Serious eye damage/irritation

Eyes – rabbit

Result: mild eye irritation.

Respiratory or skin sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

Specific target organ toxicity (single exposure)

No data available.

Specific target organ toxicity (repeated exposure)

No data available.

Aspiration hazard

No data available.

Additional information

RTECS: Not available.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

EHEM

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

The environmental impact of this product has not been fully investigated. However, no adverse reactions are known when used according to the intended use.

12.2 Persistence and degradability: no data available

12.3 Bioaccumulative potential: no data available

12.4 Mobility in soil: no data available

12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods: This material, as supplied, is not a hazardous waste according to US federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

13.2 Contaminated packaging: Do not re-use empty containers.

13.3 US EPA Waste Number: n/a

14. TRANSPORT INFORMATION

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods, not restricted.

IATA: Not dangerous goods, not restricted.

ADR / RID: Not dangerous goods, not restricted.

UN number: not applicable

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements for the Act and Title 40 of the Code of Federal Regulations, Part 372.



SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | yes |
| Chronic Health Hazard | no |
| Fire Hazard | no |
| Sudden Release of Pressure Hazard | no |
| Reactive Hazard | no |

Clean Water Act

This product does not contain any substances / quantities regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

US State Right-to-know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
| Thimerosal | | | | | |

International Regulations

WHMIS Note: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

- H301 - Toxic if swallowed or if inhaled.
- H300 + H310 - Fatal if swallowed or in contact with skin – does not apply.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H330 - Fatal if inhaled – does not apply.
- H400 - Very toxic to aquatic life – does not apply.
- H410 - Very toxic to aquatic life with long lasting effects – does not apply

Precautionary statements: P264 Wash exposed skin thoroughly after handling.
 P280 Wear protective gloves, protective clothing, eye protection, face protection.
 P305/P351/P338 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.

Disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It is the user's responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary. Chemoforma AG or its Division BMA Biomedicals shall not be held liable for any damage resulting from the handling of the above product.