

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 09.12.2009

Revision: 09.12.2009

1 Identification of substance:

- **Product details:**
 - **Trade name:** *Apo A1, A2 & B High Level Calibrator [1]*
 - **Application of the substance / the preparation:** *For research use*
 - **Manufacturer / Supplier:**
For Europe:
- | | |
|--|---|
| <p><i>Wako Chemicals GmbH
Fuggerstrasse 12
D-41468 Neuss</i></p> | <p><i>Phone: ++49(0)2131 - 311-0
Fax: ++49(0)2131 - 311-100</i></p> |
|--|---|
- **E-mail address of the competent person responsible for the Safety Data Sheet:** *sdb@csb-online.de*
 - **Informing department:** *Sales*
 - **Emergency information:** *As above or next toxicological information centre*

2 Hazards identification

- **Hazard designation:** *void*
- **Information pertaining to particular dangers for man and environment** *void*

3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Designation:**
Human serum
- **Identification number(s):** *none*
- **Chemical characterization**
- **Additional information** *For the wording of the listed risk phrases refer to section 16.*

4 First aid measures

- **General information:** *Remove contaminated clothing.*
- **After inhalation:** *Supply fresh air; consult doctor in case of symptoms.*
- **After skin contact:**
*Wash with soap and water.
If skin irritation continues, consult a doctor.*
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing:**
*Rinse out mouth and then drink plenty of water.
Seek medical treatment.*

5 Fire fighting measures

- **Suitable extinguishing agents**
Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **Special hazards caused by the material, its products of combustion or flue gases:**
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** *Wear self-contained breathing apparatus.*
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6 Accidental release measures

- **Person-related safety precautions:**
 - Wear protective clothing.
 - Ensure adequate ventilation.
 - Avoid skin and eye contact.
- **Measures for environmental protection:** Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
 - Ensure adequate ventilation.
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 - Send for recovery or disposal in suitable containers.
 - Dispose of the material collected according to regulations.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
 - Ensure good ventilation/exhaustion at the workplace.
 - Avoid skin and eye contact.
 - Avoid breathing vapours.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Storage**
- **Requirements to be met by storerooms and containers:**
 - Store only in the original container.
 - Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:**
 - Store away from oxidizers.
 - Do not store together with acids.
 - Store away from heavy metals.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed containers.
 - Store container in a well ventilated position.
 - Storage temperature: 2 - 10°C
 - Protect from direct sunlight
 - Protect from frost.
 - Deal similarly with patient serum.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
 - Instantly remove any contaminated garments.
 - Wash hands during breaks and at the end of the work.
 - Avoid contact with the eyes and skin.
 - Do not breathe vapours.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**
 - Protective gloves
 - To avoid skin problems reduce the wearing of gloves to the required minimum.
 - Check the permeability prior to each renewed use of the glove.

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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:** Safety glasses

· **Body protection:**

Protective work clothing

Protective clothing should be selected specifically for the working place.

9 Physical and chemical properties:

· **General Information**

Form:	Powder
Colour:	white
Smell:	odourless

· **Change in condition**

Melting point/Melting range: not determined

Boiling point/Boiling range: not determined

· **Flash point:** not applicable

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density** not determined

· **Solubility in / Miscibility with**

Water: readily soluble

· **Additional information** Further informations please refer to technical data sheet.

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

Direct sunlight

Heat

· **Materials to be avoided:**

Strong oxidizing agents

Acids

Heavy metals

Substances reactive to water

· **Dangerous reactions** Reacts with various metals

· **Dangerous products of decomposition:**

Carbon monoxide (CO) and Carbon dioxide (CO₂)

Nitrogen oxides (NO_x)

Sulphur oxides (SO_x)

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Phosphorus oxides (e.g. P₂O₅)

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11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect known.
- **on the eye:** Short time, reversible irritating effect.
- **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.

12 Ecological information:

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

13 Disposal considerations

- **Product:**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border):**
- **ADR/RID Class:** -

- **Maritime transport IMDG-Code:**
- **IMDG Class:** -

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

- **Designation according to EC guidelines:**
The product has not to be classified and labelled in accordance with EC Directives / relevant national laws. Observe all safety regulations when handling chemicals.
- **National regulations**
- **Decree to be applied in case of technical fault:** -
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Trade name: Apo A1, A2 & B High Level Calibrator [1]

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· Department issuing MSDS:

C.S.B. GmbH Phone: +49 - 2151 - 652086-0
Parkstraße 29 Fax: +49 - 2151 - 652086-9
D-47829 Krefeld
Germany

· Sources: These data are based on information submitted by pre-suppliers.

GB

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1 Identification of substance:

- **Product details:**

- **Trade name:** *Apo A1, A2 & B High Level Calibrator Diluent [2]*

- **Application of the substance / the preparation:** *For research use*

- **Manufacturer / Supplier:**

For Europe:

Wako Chemicals GmbH

Fuggerstrasse 12

D-41468 Neuss

Phone: ++49(0)2131 - 311-0

Fax: ++49(0)2131 - 311-100

- **E-mail address of the competent person responsible for the Safety Data Sheet:** *sdb@csb-online.de*

- **Informing department:** *Sales*

- **Emergency information:** *As above or next toxicological information centre*

2 Hazards identification

- **Hazard designation:** *void*

- **Information pertaining to particular dangers for man and environment** *void*

- **Classification system**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

3 Composition/information on ingredients

- **Chemical characterization**

- **Description:**

Mixture

Normale goat serum 50 %, sodium chloride 2,0 % and sodium azide 0,09 %

- **Dangerous components:**

CAS: 26628-22-8	Sodium azide	T+, N; R 28-32-50/53	< 2.5%
EINECS: 247-852-1			
Index number: 011-004-00-7			

- **Additional information** *For the wording of the listed risk phrases refer to section 16.*

4 First aid measures

- **General information:** *Remove contaminated clothing.*

- **After inhalation:** *Supply fresh air; consult doctor in case of symptoms.*

- **After skin contact:**

Wash with soap and water.

If skin irritation continues, consult a doctor.

- **After eye contact:**

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

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

5 Fire fighting measures

- **Suitable extinguishing agents**

Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

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- **Special hazards caused by the material, its products of combustion or flue gases:**
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective clothing.
Ensure adequate ventilation.
Avoid skin and eye contact.
- **Measures for environmental protection:** Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable containers.
Dispose of the material collected according to regulations.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Avoid skin and eye contact.
Avoid breathing vapours.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:**
Store away from oxidizers.
Do not store together with acids.
Store away from heavy metals.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
Store container in a well ventilated position.
Storage temperature: 2 - 10°C
Protect from direct sunlight
Protect from frost.
Deal similarly with patient serum.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with critical values that require monitoring at the workplace:**

26628-22-8 Sodium azide

WEL (Great Britain)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ (as NaN ₃) Sk
IOELV (European Union)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin

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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Instantly remove any contaminated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Do not breathe vapours.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**
Protective gloves
To avoid skin problems reduce the wearing of gloves to the required minimum.
Check the permeability prior to each renewed use of the glove.
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:** Safety glasses
- **Body protection:**
Protective work clothing
Protective clothing should be selected specifically for the working place.

9 Physical and chemical properties:

· General Information

Form:	liquid
Colour:	pale yellow
Smell:	odourless

· Change in condition

Melting point/Melting range: not determined
Boiling point/Boiling range: not determined

· **Flash point:** not applicable

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density** not determined

· Solubility in / Miscibility with

Water: miscible

· **pH-value at 20°C:** 7.5

· **Additional information** Further informations please refer to technical data sheet.

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Trade name: Apo A1, A2 & B High Level Calibrator Diluent [2]

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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**

Direct sunlight

Heat

- **Materials to be avoided:**

Strong oxidizing agents

Acids

Heavy metals

Substances reactive to water

- **Dangerous reactions** Reacts with various metals

- **Dangerous products of decomposition:**

Carbon monoxide (CO) and Carbon dioxide (CO₂)Nitrogen oxides (NO_x)Sulphur oxides (SO_x)Phosphorus oxides (e.g. P₂O₅)

11 Toxicological information

- **Acute toxicity:**

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

26628-22-8 Sodium azide

Oral LD50 27 mg/kg (rat)

Dermal LD50 20 mg/kg (rabbit)

7647-14-5 Sodium chloride

Oral LD50 3000 mg/kg (rat)

Dermal LD50 > 10000 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** Slightly irritating

- **on the eye:** Short time, reversible irritating effect.

- **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.

12 Ecological information:

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

26628-22-8 Sodium azide

EC50/48 h 4.2 mg/l (Daphnia pulex)

LC50/96 h 0.7 mg/l (bluegill (Lepomis macrochirus))

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

13 Disposal considerations

- **Product:**

- **Recommendation** Disposal must be made according to official regulations.

- **European waste catalogue:**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border):**
- **ADR/RID Class:** -

- **Maritime transport IMDG-Code:**
- **IMDG Class:** -

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

- **Designation according to EC guidelines:**
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
Observe all safety regulations when handling chemicals.
- **National regulations**
- **Decree to be applied in case of technical fault:** -
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases:**
The(se) R-phrases are those of the ingredient(s) and do(es) NOT represent the classification of the preparation.
28 Very toxic if swallowed.
32 Contact with acids liberates very toxic gas.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Department issuing MSDS:**
C.S.B. GmbH Phone: +49 - 2151 - 652086-0
Parkstraße 29 Fax: +49 - 2151 - 652086-9
D-47829 Krefeld
Germany
- **Sources:** These data are based on information submitted by pre-suppliers.

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