

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Product name : Aqueous polymer particle suspension  
Product code : SDSAM003  
Product group : Trade product

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses**

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : Calibration, Validation.

Title	Life cycle stage	Use descriptors
NanoStandards™ - 10000 Series MicroStandards™ - 11000 Series Size Standards and Count Controls - 21000 Series / 22000 Series PharmaCounts™ - 20000 Series Research Grade Polymer Microsphere Suspensions - 60000 Series Zeta Potential Controls - 70000 Series	Professional	SU3, SU22, PC20, PC21, PROC15

Full text of use descriptors: see section 16

**1.3. Details of the supplier of the safety data sheet**

Applied Microspheres GmbH  
Nestléstr. 41  
55120 Mainz  
Germany  
T +49 (0) 6131 5540080  
[info@applied-microspheres.com](mailto:info@applied-microspheres.com), [www.applied-microspheres.com](http://www.applied-microspheres.com)

**1.4. Emergency telephone number**

No additional information available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Adverse physicochemical, human health and environmental effects**

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

EUH-statements : EUH210 - Safety data sheet available on request.  
Extra phrases : The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

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### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 6.2. Environmental precautions

Avoid release to the environment.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: 4 – 30 °C , should not exceed 49°C.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Personal protection equipment

##### Eye and face protection

###### Eye protection:

Recommendation. Wear eye glasses with side protection according to EN 166. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure

##### Skin protection

###### Skin and body protection:

Recommendation: Wear suitable protective clothing (EN 14605). Lab coat

###### Hand protection:

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes. Recommendation: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber ( $\geq 0.4$  mm), butyl rubber ( $\geq 0.7$  mm) and others. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### Respiratory protection

###### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. High efficiency particulate air filter (HEPA filter)

##### Environmental exposure controls

###### Environmental exposure controls:

Avoid release to the environment.

###### Other information:

Always wash your hands immediately after handling this product, and once again before leaving the workplace.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. white.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: 0 °C (like water)
Boiling point	: 100 °C (like water)
Flammability	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7 – 11
Viscosity, kinematic	: Not available
Solubility	: Water: The particles are non-soluble. But the suspension can be mixed with water in any ratio.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified

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Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified pH: 7 – 11
Serious eye damage/irritation	: Not classified pH: 7 – 11
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

#### Aqueous polymer particle suspension

Persistence and degradability	Rapidly degradable
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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

#### Aqueous polymer particle suspension

Other information	Avoid release to the environment.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Avoid release to the environment. In order to avoid release into aquatic systems, dry the suspension and dispose by general laboratory waste.

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European List of Waste (LoW, EC 2000/532) : 16 05 06\* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available.				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU-Regulations

Other information, restriction and prohibition regulations

: This product contains microparticles. Waste containing the particles must be routed as hazardous and must not be discharged down public waste streams. If the instructions for the product indicate to dispose of the waste as general (i.e, down the drain), this letter overrides them. Depending on the intended use, waste may be manually caught or emptied into an internal container within an instrument. Work with your Environmental Health & Safety Manager or Lab Manager to coordinate capture and disposal of waste from this product.

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### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
78.	Aqueous polymer particle suspension	Synthetic polymer microparticles according to the criteria for Annex XVII entry 78

### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

### Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

### Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## 15.2. Chemical safety assessment

A chemical safety assessment has been carried out

## SECTION 16: Other information

### Indication of changes:

Revision :

Indication of changes		
Section	Changed item	Comments
	Supersedes	Modified
	Revision date	Modified
2.2	Extra phrases	Added
15.1	REACH Annex XVII	Added
15.1	Other information, restriction and prohibition regulations	Added

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association

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### Abbreviations and acronyms:

IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
DNEL	Derived-No Effect Level
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

### Other information

: **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

### Full text of H- and EUH-statements:

EUH210	Safety data sheet available on request.
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### Full text of use descriptors

PC20	Metal surface treatment products
PC21	Laboratory chemicals
PROC15	Use as laboratory reagent
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.