

## SAFETY DATA SHEET

# Fumed Silica Suspension 0.2µm Alkaline

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

#### Trade name

Fumed Silica Suspension 0.2µm Alkaline

#### Product no.

48123015, 48123017 (1080-1090)

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

#### Relevant identified uses of the substance or mixture

Polishing of metallographic samples

#### ▼ Uses advised against

None known.

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

#### Company and address

##### **Akasel A/S**

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Denmark

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#### E-mail

safety@akasel.com

#### Revision

08/01/2023

#### SDS Version

3.0

#### Date of previous version

15/06/2022 (2.0)

### 1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

### 2.2. Label elements

#### ▼ Hazard pictogram(s)

Not applicable.

#### ▼ Signal word

Not applicable.

#### ▼ Hazard statement(s)

Not applicable.

#### Safety statement(s)

General

-

Prevention

-

Response

-

Storage

-  
Disposal  
-

▼ Hazardous substances

None known.

▼ Additional labelling

EUH208, Contains reaction mass of:5-chloro-2-methyl-4-isothiazolin-3-one[EC no. 247-500-7] and 2-methyl-2H-isothiazol. May produce an allergic reaction.

EUH210, Safety data sheet available on request.

2.3. Other hazards

▼ Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. ▼ Substances

Not applicable. This product is a mixture.

3.2. ▼ Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Silica, synthetic amorphous, fumed, crystalline-free	CAS No.: 112945-52-5 EC No.: 231-545-4 UK-REACH: Index No.:	60-80%		
Propane-1,2-diol	CAS No.: 57-55-6 EC No.: 200-338-0 UK-REACH: Index No.:	15-25%		
reaction mass of:5-chloro-2-methyl-4-isothiazolin-3-one[EC no. 247-500-7] and 2-methyl-2H-isothiazol	CAS No.: 55965-84-9 EC No.: UK-REACH: Index No.: 613-167-00-5	<0.0015%	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 (SCL: 0.60 %) Skin Irrit. 2, H315 (SCL: 0.06 %) Skin Sens. 1, H317 (SCL: 0.0015 %) Eye Irrit. 2, H319 (SCL: 0.06 %) Acute Tox. 3, H331 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

▼ Other information

The CAS-No. 7631-86-9 is an old CAS-no. and is related to silica in general (silicon dioxide SiO<sub>2</sub>) in all physical forms. The CAS-No. 112945-52-5 is the new CAS-No. for pyrogenic or fumed synthetic amorphous silica.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

#### Eye contact

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

#### ▼ Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### ▼ Burns

Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

None known.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

#### 5.2. ▼ Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

#### 5.3. Advice for firefighters

Fire fighters should wear appropriate personal protective equipment.

### SECTION 6: Accidental release measures

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

No specific requirements.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

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

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. ▼ Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

#### Recommended storage material

Always store in containers of the same material as the original container.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

**Storage temperature**

Room temperature 18 to 23°C

**Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**7.3. ▼ Specific end use(s)**

This product should only be used for applications quoted in section 1.2.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

Silica, synthetic amorphous, fumed, crystalline-free  
 Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 6

Propane-1,2-diol

Long term exposure limit (8 hours) (ppm): 150(total)

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 474(total)/10(particulates)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

**DNEL**

Propane-1,2-diol

Duration	Route of exposure	DNEL
Long term – Systemic effects - General population	Dermal	213mg/kg bw/dg
Long term – Local effects - General population	Inhalation	10mg/m3
Long term – Local effects - Workers	Inhalation	10mg/m3
Long term – Systemic effects - General population	Inhalation	50mg/m3
Long term – Systemic effects - Workers	Inhalation	168mg/m3
Long term – Systemic effects - General population	Oral	85 mg/m3

**PNEC**

Propane-1,2-diol

Route of exposure	Duration of Exposure	PNEC
Activated Sludge Plant		2000mg/l
Freshwater		260 mg/l
Freshwater sediment		572 mg/kg d.w
Intermittent release		183mg/l
Marine water		26mg/l
Marine water sediment		57.2mg/kg d.w
Soil		50mg/kg d.w

**8.2. ▼ Exposure controls**

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

**General recommendations**

Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

**▼ Appropriate technical measures**

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

**Hygiene measures**

In between use of the product and at the end of the working day all exposed areas of the body must be washed

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

thoroughly. Always wash hands, forearms and face.

▼ Measures to avoid environmental exposure

No specific requirements.

8.3. Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Work situation	Type	Class	Colour	Standards
When grinding or application by spray	S/SL	P2	White	EN149



▼ Skin protection

No specific requirements.

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,38	> 480	EN374-2, EN374-3, EN388



▼ Eye protection

No specific requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

White

Odour / Odour threshold

Sweet

pH

9.5 - 10.5

▼ Density (g/cm<sup>3</sup>)

Testing not relevant or not possible due to the nature of the product.

▼ Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

▼ Melting point/Freezing point (°C)

Testing not relevant or not possible due to the nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

▼ Boiling point (°C)

Testing not relevant or not possible due to the nature of the product.

Vapour pressure

17.25 mmHg

▼ Relative vapour density

Testing not relevant or not possible due to the nature of the product.

▼ Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

▼ Flash point (°C)

Testing not relevant or not possible due to the nature of the product.

▼ Auto-Ignition (°C)

Testing not relevant or not possible due to the nature of the product.

▼ Flammability (°C)

Testing not relevant or not possible due to the nature of the product.

▼ Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to the nature of the product.

Solubility

Solubility in water

Completely soluble

▼ n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

▼ Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

▼ Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. ▼ Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. ▼ Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Silica, synthetic amorphous, fumed, crystalline-free
Test method	
Species	Rabbit
Route of exposure	Oral
Test	LD50
Result	5000 mg/kg
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Guinea pig
Route of exposure	Intraperitoneal
Test	LD50
Result	9718 mg/kg
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	6423 mg/kg
Other information	

Product/substance	Propane-1,2-diol
Test method	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Species	Rabbit
Route of exposure	Oral
Test	LD50
Result	18500 mg/kg
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Rabbit
Route of exposure	Inhalation
Test	LC50 (2 hours)
Result	>317 mg/L
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg
Other information	

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

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

#### Respiratory sensitisation

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

#### ▼ Skin sensitisation

This product contains substances that may trigger an allergic reaction in already sensitized persons.

#### 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.

#### STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

### 11.2. Information on other hazards

#### ▼ Long term effects

None known.

#### ▼ Endocrine disrupting properties

None known.

#### ▼ Other information

None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product/substance	Silica, synthetic amorphous, fumed, crystalline-free
Test method	
Species	Daphnia
Compartment	
Duration	24 hours
Test	LC50
Result	>10000 mg/L
Other information	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Product/substance	Silica, synthetic amorphous, fumed, crystalline-free
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	>10000 mg/L
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	110 mg/L
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	710 mg/L
Other information	

Product/substance	Propane-1,2-diol
Test method	
Species	Algae
Compartment	
Duration	96 hours
Test	ErC50
Result	19000 mg/L
Other information	

#### 12.2. Persistence and degradability

Product/substance	Propane-1,2-diol
Biodegradable	Yes
Test method	OECD 301 F
Result	81,7 %

#### 12.3. ▼ Bioaccumulative potential

Product/substance	Silica, synthetic amorphous, fumed, crystalline-free
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	

Product/substance	Propane-1,2-diol
Test method	
Potential bioaccumulation	No
LogPow	-0,7800
BCF	0.09
Other information	

#### 12.4. ▼ Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

#### 12.6. ▼ Endocrine disrupting properties

None known.

#### 12.7. ▼ Other adverse effects

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

None known.

## SECTION 13: Disposal considerations

### Waste treatment methods

Product is not covered by regulations on dangerous waste.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

#### ▼ EWC code

Not applicable.

#### ▼ Specific labelling

Not applicable.

### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

### Additional information

Not dangerous goods according to ADR, IATA and IMDG.

#### 14.6. ▼ Special precautions for user

Not applicable.

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

No data available.

## SECTION 15: Regulatory information

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

#### Restrictions for application

Restricted to professional users.

#### ▼ Demands for specific education

No specific requirements.

#### ▼ SEVESO - Categories / dangerous substances

Not applicable.

#### ▼ Additional information

Not applicable.

#### Sources

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### Full text of H-phrases as mentioned in section 3

H301, Toxic if swallowed.

H311, Toxic in contact with skin.

H314, Causes severe skin burns and eye damage.  
H315, Causes skin irritation.  
H317, May cause an allergic skin reaction.  
H319, Causes serious eye irritation.  
H331, Toxic if inhaled.  
H400, Very toxic to aquatic life.  
H410, Very toxic to aquatic life with long lasting effects.

#### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CE = Conformité Européenne  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IARC = International Agency for Research on Cancer (IARC)  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SCL = A specific concentration limit  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### ▼ Additional information

Not applicable.

#### ▼ The safety data sheet is validated by

[iro@akasel.com](mailto:iro@akasel.com)

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en