

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

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Akasel A/S

Svogerslev Hovedgade 48

4000 Roskilde

Denmark

+45 57 84 05 01

www.akasel.com

E-mail

safety@akasel.com

SDS date

28-09-2021

SDS Version

1.0

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)

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

No special

2.3. Other hazards

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.

Additional warnings

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

SECTION 3: Composition/information on ingredients

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 REACH: 01-2119379499-16-xxxx Index No.:	60-80%		
Propane-1,2-diol	CAS No.: 57-55-6 EC No.: 200-338-0 REACH: 01-2119456809-23-xxxx 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.: 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 Sens. 1, H317 (SCL: 0.0015 %) 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 SiO₂) 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 victim 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

This product contains substances that may trigger an allergic reaction to predisposed persons.

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

No special

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 / CO₂).

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.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of 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.

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/m³): 6

—
Propane-1,2-diol

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

Long term exposure limit (8 hours) (mg/m³): 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

Product/substance	Propane-1,2-diol
DNEL	168mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - Workers

Product/substance	Propane-1,2-diol
DNEL	10mg/m ³
Route of exposure	Inhalation
Duration	Long term – Local effects - Workers

Product/substance	Propane-1,2-diol
DNEL	213mg/kg bw/dg
Route of exposure	Dermal
Duration	Long term – Systemic effects - General population

Product/substance	Propane-1,2-diol
DNEL	50mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - General population

Product/substance	Propane-1,2-diol
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DNEL	85 mg/m ³
Route of exposure	Oral
Duration	Long term – Systemic effects - General population

Product/substance	Propane-1,2-diol
DNEL	10mg/m ³
Route of exposure	Inhalation
Duration	Long term – Local effects - General population

PNEC

Product/substance	Propane-1,2-diol
PNEC	260 mg/l
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	26mg/l
Route of exposure	Marine water
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	183mg/l
Route of exposure	Intermittent release
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	572 mg/kg d.w
Route of exposure	Freshwater sediment
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	50mg/kg d.w
Route of exposure	Soil
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	2000mg/l
Route of exposure	Activated Sludge Plant
Duration of Exposure	

Product/substance	Propane-1,2-diol
PNEC	57.2mg/kg d.w
Route of exposure	Marine water sediment
Duration of Exposure	

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 emergency eyewash and -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 thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements


Individual protection measures, such as personal protective equipment

Generally

Use only CE 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

Form

Liquid

Colour

White

Odour

Sweet

Odour threshold (ppm)

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

pH

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

Density (g/cm³)

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

Viscosity

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

Phase changes

Melting point (°C)

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

Boiling point (°C)

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

Vapour pressure

17.25 mmHg

Vapour density

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

Decomposition temperature (°C)

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

Evaporation rate (n-butylacetate = 100)

Data on fire and explosion hazards

Flash point (°C)

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

Ignition (°C)

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

Auto flammability (°C)

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

Explosion limits (% v/v)

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

Explosive properties

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

Oxidizing properties

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

Solubility

Solubility in water

Soluble

n-octanol/water coefficient

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

Solubility in fat (g/L)

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

9.2. Other information

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

No special

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 toxicological effects

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 Rabbit

Route of exposure Dermal

Test LD50

Result >2000 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

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

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 to predisposed 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.

Long term effects

No special

Other information

No special

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	

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. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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 - 14.4

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

Not applicable

IMDG

Not applicable

"MARINE POLLUTANT"

No

IATA

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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.

H317, May cause an allergic skin reaction.

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
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

Not applicable

The safety data sheet is validated by

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