

required pursuant to Hazardous Product Regulations 2015.

Functionalized Synthetic Amorphous Silica N0144

Date: 18.03.2025 Revision: - Page/pages: 1/13

SECTION 1: Identification

Product name: Functionalized Synthetic Amorphous Silica

Product code: N0144

 Other means of identification:
 Agilon 400D; Agilon 400 G-D; Agilon 454D; Agilon 454 G-D; 8011775; 8011967; 8011981; 8012270; 8012343;

8012514; 8012684

Product type: Powder.

Relevant identified uses of the substance or mixture and uses advised against

Product use: Industrial applications.

Use of the substance/mixture:

Reinforcing agent in rubber.; Additive

Uses advised against: Not applicable

Manufacturer: QEMETICA US Silica LLC

3150 Pete Manena Road, Westlake, LA 70669, USA

Customer Service: 1-800-243-6745

QEMETICA NL SIlica B.V.

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Customer Service: +31-596-676710 Technical Service: +31-596-676710

E-mail address for the person responsible for the safety data sheet:

sds@qemetica.com

Emergency telephone number

Washington DC: +1 703-741-5970 (Chemtrec Emergency number,

CCN1020385)

SECTION 2: Hazards identification

Classification of the substance or mixture: Not classified.

GHS label elements:

Signal word: No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements

Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

Supplemental label

Elements: Hazards not otherwise Emits toxic fumes when heated.

Classified: None known.



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SECTION 3: Composition/information on ingredients

Substance/mixture Mixture

Product name: Functionalized Synthetic Amorphous Silica

Other means of identification

Agilon 400D; Agilon 400 G-D; Agilon 454D; Agilon 454 G-D; 8011775; 8011967; 8011981; 8012270; 8012343;

8012514; 8012684

Ingredient name	Synonyms	%	CAS number
Silica, amorphous, precipitated and gel	Silica gel, precipitated, crystalline-free; Silica gel, precipitated, crystalline free; Amorphous synthetic silica gel; Synthetic amorphous silica, precipitated; Synthetic, crystalline free, silica gel; Silica, amorphous, precipitated and gel.; Silica - Amorphous, gel; Silica, Amorphous Precipitated and gel; Precipitated Silica; Silica gel;	80 - 100*	112926-00-8

^{*}Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

Contains no detectable crystalline silica (detection limit <0.1% by weight).

SUB codes represent substances without registered CAS Numbers.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Protect the non-irritated eye, remove contact lenses. Rinse

the contaminated eyes carefully with water for 10-15 minutes. Avoid strong streams of water – the risk of damaging the cornea. After rinsing put on an aseptic – sterile

dressing and seek immediate medical advice.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not



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breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin

thoroughly with soap and water or use recognized skin

cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show the

packing or label. Keep person warm and at rest. Do NOT

induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Exposure to airborne concentrations above statutory or

recommended exposure limits may cause irritation of the

eyes.

Inhalation: Exposure to airborne concentrations above statutory or

recommended exposure limits may cause irritation of the

nose, throat and lungs.

Skin contact: No known significant effects or critical hazards. **Ingestion:** No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

irritation redness

Inhalation: Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: No specific data. **Ingestion:** No specific data.

Indication of immediate medical attention and special treatment needed, if

necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

Specific treatment: No specific treatment

Protection of first-

Protection of firstNo action shall be taken involving any personal risk or without

suitable training.

See toxicological information (Section 11)

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable Use an extinguishing agent suitable for the

extinguishingmedia: surrounding fire.

Unsuitable extinguishing

media:

None known.

Specific hazards arising from

Special protective actions

Hazardous thermal

the chemical:

When transferring material into flammable solvents, use proper grounding to avoid electrical sparks.

Promptly isolate the scene by removing all persons

Decomposition products may include the following

decomposition products: materials: carbon oxides, metal oxide/oxides.



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for fire-fighters: from the vicinity of the incident if there is a fire. No

action shall be taken involving any personal risk or

without suitable training.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency No

personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For

nonemergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution

(sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material

and place in a designated, labeled waste container. Dispose

of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from

upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste

disposal.

Reference to other

sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal

protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

Precautions for safe handling

Protective Put on appropriate personal protective equipment (see

measures: Section 8). Avoid breathing dust.

Special precautions: When transferring material into flammable solvents, use

proper grounding to avoid electrical sparks.

Advice on general occupational

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.



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hygiene:

Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Do not store below the following temperature: -30°C (-22°F). Store in accordance with local regulations. Store in original container protected from moisture, direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exosure limits

Ingredient name	Exposure limits	
	CA British Columbia Provincial	
	(Canada, 6/2022).	
	TWA: 1.5 mg/m ³ 8 hours. Form:	
	Respirable	
	TWA: 4 mg/m ³ 8 hours. Form: Total	
	CA Quebec Provincial (Canada,	
Silica, amorphous, precipitated and gel	6/2022).	
	TWAEV: 6 mg/m ³ 8 hours. Form:	
	Respirable dust.	
	CA Saskatchewan Provincial (Canada,	
	7/2013).	
	STEL: 20 mg/m³ 15 minutes.	
	TWA: 10 mg/m ³ 8 hours.	

Recommended monitoring procedures:

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



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Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling

chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are

close to the workstation location.

Eye/face protection: Safety glasses with side shields.

Skin protection:

Hand protection: Chemical-resistant, impervious gloves complying with an

approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is

necessary.

Body protection: Personal protective equipment for the body should be

selected based on the task being performed and the risks involved and should be approved by a specialist before

handling this product.

Other skin protection: Appropriate footwear and any additional skin protection

measures should be selected based on the task being performed and the risks involved and should be approved by

a specialist before handling this product.

Respiratory protection: Respirator selection must be based on known or anticipated

exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is

necessary.

SECTION 9: Physical and chemical properties

Appearance:

Physical state: Solid.

Color: Not available.
Odor: Not available
Odor threshold: Not available.

pH: 5 to 9

Melting point: Not available. Boiling point: Not available.

Flash point: Not applicable. Product does not sustain combustion.

Auto-ignition Not applicable.

Decomposition

temperature: Not available.

Flammability: Not available.
Lower and upper explosive (flammable)

Not applicable.



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limits:

Evaporation rate: Not available.
Vapor pressure: Not available.
Vapor density: Not applicable.
Relative density: Not available.

Solubility(ies):

MediaResultcold waterSoluble

Water Solubility at room

temperature:

0.02 g/l

Partition coefficient:

noctanol/water:
Viscosity

Not applicable
Not applicable

SECTION 10: Stability and reactivity

Reactivity

No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

The product is stable.

Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

High temperature (>800 C) treatment (calcining). Avoid alteration of product properties before use. Calcining (which may result in crystalline formation) or mixing with additives may alter toxicological properties.

Refer to protective measures listed in sections 7 and 8.

Incompatible materials

Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products

Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides

SECTION 11: Toxicological information

Information on toxicological effects

Acute Toxicity:

Product/ingredient name	Result	Species	Dose	Exposure
Silica, amorphous,	LD50 Dermal	Rabbit	>5000 mg/kg	-
precipitated and gel	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary: There are no data available on the mixture itself. Classification is based on calculation method



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Irritation/Corrosion:

Conclusion/Summary

Skin: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class skin irritation, therefore classification criteria are not met.

Eyes: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class eyes irritation, therefore classification criteria are not met.

Respiratory: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class respiratory irritation, therefore classification criteria are not met.

Sensitization:

Conclusion/Summary

Skin: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class skin sensitization, therefore classification criteria are not met.

Respiratory: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class respiratory sensitization, therefore classification criteria are not

Mutagenicity:

Conclusion/Summary: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class mutagenicity, therefore classification criteria are not met.

Carcinogenicity:

Product/ingredient	OSHA	IARC	NTP
name			
Silica, amorphous, precipitated and gel	-	3	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4 NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

Not listed/not regulated: -

Reproductive Toxicity:

Conclusion/Summary: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class reproductive toxicity, therefore classification criteria are not met.

Teratogenicity:

Conclusion/Summary: There are no data available on the mixture itself. Mixture ingredients are not classified in hazar class teratogenicity, therefore classification criteria

Specific target organ toxicity (single exposure):

Not available. Mixture ingredients are not classified in hazar class STOT SE, therefore classification criteria are not met.

Specific target organ toxicity (repeated exposure):

Not available. Mixture ingredients are not classified in hazar class STOT RE, therefore classification criteria are not met.

Target organs: Contains material which may cause damage to the following organs: upper respiratory tract, eyes.

Aspiration hazard:

Not available. Mixture ingredients are not classified in hazar class aspiration hazard, therefore classification criteria are not met.

Information on the likely routes of exposure



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Potential acute health effects

Eye contact: Exposure to airborne concentrations above statutory or

recommended exposure limits may cause irritation of the

eyes.

Inhalation: Exposure to airborne concentrations above statutory or

recommended exposure limits may cause irritation of the

nose, throat and lungs.

Skin contact: No known significant effects or critical hazards Ingestion: No known significant effects or critical hazards

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

irritation redness

Inhalation: Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: No specific data. Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary:

There are no data available on the mixture itself. An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/cu.m. per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals ' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of all studies performed by, or known to, Qemetica indicate a very low order of pulmonary activity for synthetic precipitated silicas. Oemetica recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from shortterm and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate There are no data available on the mixture itself.



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effects:

Potential delayed

effects:

There are no data available on the mixture itself.

Long term exposure

Potential immediate

effects:

There are no data available on the mixture itself.

Potential delayed

effects:

There are no data available on the mixture itself.

Potential chronic health effects

General:

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest reentagenograms) of these workers.

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Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/cu.m. per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of all studies performed by, or known to, Qemetica indicate a very low order of pulmonary activity for synthetic precipitated silicas. Qemetica recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear

respiratory protection.

Carcinogenicity: No known significant effects or critical hazards. Mutagenicity: No known significant effects or critical hazards. Reproductive Toxicity: No known significant effects or critical hazards.

SECTION 12: Ecological information

Toxicity

Product/ingredient	Result	Species	Exposure
name			
Silica, amorphous,	NOEC >1000 ppm	Daphnia - <i>Daphnia</i>	24 hours
precipitated and gel		magna	
	Acute NOEC	Fish	96 hours
	>10000 ppm Fresh		Static
	water		
	Acute NOEC	Fish - Brachydanio	4 days
	>10000 ppm	rerio	Static

Persistence and degradability

Product/ingredient	Aquatic half-life	Photolysis	Biodegradability



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name			
Silica, amorphous,	-	-	Not readily
precipitated and gel			-

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Silica, amorphous,	-	0	Low
precipitated and gel			

Mobility in soil

Soil/water partition coefficient (Koc): Not available.

Other adverse effects (such as hazardous to the ozone layer)

The substance does not contribute to ozone layer depletion.

SECTION 13: Disposal considerations

Disposal methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

SECTION 14: Transport information

	TDG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper			
shipping	-	-	-
name			
Transport hazard			
class	-	-	-
(es)			
Packing group	-	-	-
Environmental hazards	No.	No.	No.



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Marine pollutant Not applicable. Not applicable. Not applicable. substances

Additional information:

TDG: None identified. IMDG: None identified. IATA: None identified.

Special precautions

for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an

accident or spillage.

Transport in bulk

according

Not applicable.

to IMO instruments:

SECTION 15: Regulatory information

National Inventory List

Canada Inventory (DSL): All components are listed or exempted.

SECTION 16: Other information

Hazardous Material Information System (U.S.A.)

Health: 1 Flammability: 0 **Physical hazards:** 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, thepreparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Flammability: 0 Health: 1 **Instability:** 0

Date of previous

issue **Organization that** 18.03.2025

prepared the SDS:

EHS

Key to abbreviations:

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and

Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container



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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)
N/A = Not available

SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by Qemetica, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.