# SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

# SILATHERM T 1360-400 AST

| Version | Revision Date: | SDS Number: | Date of last issue: - |
|---|---|---|---|
| 1.0 | 28.03.2023 | 100000000439 | Date of first issue: 28.03.2023 |

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

### 1.1 Product identifier

Trade name : SILATHERM T 1360-400 AST

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

Use of the Substance/Mixture : Filler, Raw material for industry

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

Company : Quarzwerke GmbH
Kaskadenweg 40
50226 Frechen
Germany

Telephone : +4922341010

E-mail address of person responsible for the SDS : msds@quarzwerke.com

### 1.4 Emergency telephone number

112

**Emergency telephone number (internal):**
+49 (0)2234-101-700

**Available outside office hours?:**
yes

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

**Additional Labelling**

EUH210 Safety data sheet available on request.

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled. This product should be handled with care to avoid dust generation.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| aluminium silicate | 12141-46-7<br>235-253-8 | | >= 90 |
| Quartz (SiO2) | 14808-60-7<br>238-878-4 | STOT RE 1; H372 (Lungs) | < 1 |
| Substances with a workplace exposure limit : | | | |
| Quartz (SiO2) | 14808-60-7<br>238-878-4 | | >= 1 - < 10 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.
Protect unharmed eye.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

None known.

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

Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**5.2 Special hazards arising from the substance or mixture**

Hazardous combustion products : No hazardous combustion products are known

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Avoid dust formation.

**6.2 Environmental precautions**

Environmental precautions : No special environmental precautions required.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

See sections: 7, 8, 11, 12 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice.

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

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No materials to be especially mentioned.

Storage class (TRGS 510) : 13

Further information on storage stability : Keep in a dry place.
No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Quartz (SiO2) | 14808-60-7 | TWA (Respirable dust) | 0,1 mg/m3 | 2004/37/EC |
| | Further information: Carcinogens or mutagens | | | |
| | | TWA (Alveolar dust fraction) | 0,05 mg/m3 (Silica) | TRGS 559 - Quarzhaltiger Staub (Dust containing quartz) |
| | Further information: Assessment standard related to a shift of 8 hours. The maximum exceedance factor is 8. | | | |
| titanium dioxide | 13463-67-7 | AGW (Inhalable fraction) | 10 mg/m3 (Titanium dioxide) | DE TRGS 900 |
| | Peak-limit: excursion factor (category): 2;(II) | | | |
| | Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| | | AGW (Alveolate | 1,25 mg/m3 | DE TRGS |

| | | | | |
|---|---|---|---|---|
| | | fraction) | (Titanium dioxide) | 900 |
| | Peak-limit: excursion factor (category): 2;(II) | | | |
| | Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| | | BM (Alveolar dust fraction) | 0,5 mg/m3 | DE TRGS 527 |

**8.2 Exposure controls**

**Engineering measures**

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 - inhalable particles.

**Personal protective equipment**

Eye/face protection : Safety glasses

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Equipment should conform to EN 143
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

Physical state : solid, powder

Colour : grey, brown, red brown

Odour : odourless

Flammability : The product is not flammable.

Flash point : Not applicable

pH : 6

Solubility(ies)
Water solubility : insoluble

Density : 3,2 - 3,7 g/cm3

Particle characteristics
Assessment : Commission Regulation (EU) 2020/878
Assessment: This substance/ mixture does not contain nanoforms

**9.2 Other information**

No data available

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

No decomposition if stored and applied as directed.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Stable under recommended storage conditions.

**10.4 Conditions to avoid**

Conditions to avoid : Not applicable

**10.5 Incompatible materials**

Materials to avoid : Not applicable

Not applicable

**10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

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

**Acute toxicity**

Not classified based on available information.

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Components:**

**Quartz (SiO2):**

Carcinogenicity - Assessment : Lung cancer excess risk is demonstrated only under high occupational exposures to Respirable Crystaline Silica. The lung cancer excess risk is restricted to subjects who contracted silicosis.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Components:**

**Quartz (SiO2):**

Exposure routes : Inhalation

Target Organs : Lungs

Assessment : Causes damage to organs through prolonged or repeated exposure.

Remarks : Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.
So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below).

**Aspiration toxicity**

Not classified based on available information.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Further information**

**Product:**

Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Quartz (SiO2):**

**Ecotoxicology Assessment**

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Product:**

Additional ecological information : No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

## SECTION 14: Transport information

**14.1 UN number or ID number**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.2 UN proper shipping name**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.3 Transport hazard class(es)**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA** | : | Not regulated as a dangerous good |

**14.4 Packing group**

| | | |
|---|---|---|
| **ADN** | : | Not regulated as a dangerous good |
| **ADR** | : | Not regulated as a dangerous good |
| **RID** | : | Not regulated as a dangerous good |
| **IMDG** | : | Not regulated as a dangerous good |
| **IATA (Cargo)** | : | Not regulated as a dangerous good |
| **IATA (Passenger)** | : | Not regulated as a dangerous good |

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Not applicable |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast) | : | Not applicable |
| Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals | : | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV) | : | Not applicable |

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. — Not applicable

Water hazard class (Germany) : nwg not water endangering
Classification according to AwSV, Annex 1 (2.2)

TA Luft List (Germany) :
5.2.1 Total dust:
Applicable
5.2.2 Inorganic substances in powdered form:
Not applicable
5.2.4 Inorganic substances in gaseous form:
Not applicable
5.2.5 Organic Substances:
Not applicable
5.2.7.1.1 Carcinogenic substance:
Not applicable
5.2.7.1.1 Quartz fine dust PM4:
Applicable
5.2.7.1.1 Formaldehyde:
Not applicable
5.2.7.2 Poorly degradable, easily enrichable and highly toxic organic substances:
Not applicable
5.2.7.1.3 Substances toxic to reproduction:
Not applicable
5.2.7.2 Poorly degradable, easily enrichable and highly toxic

organic substances:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable

**Other regulations:**

TRGS 906 - Verzeichnis krebserzeugender Tätigkeiten oder Verfahren nach § 3 Abs. 2 Nr. 3 GefStoffV
TRGS 900 - Arbeitsplatzgrenzwerte (Occupational exposure limit values)
TRGS 559 - Quarzhaltiger Staub (Dust containing quartz)
TRGS 500 - Schutzmaßnahmen (Protective measures)
TRGS 402 - Ermitteln und Beurteilen der Gefährdungen bei Tätigkeiten mit Gefahrstoffen: Inhalative Exposition

**The components of this product are reported in the following inventories:**

| | | |
|---|---|---|
| TCSI | : | Not in compliance with the inventory |
| NZIoC | : | Not in compliance with the inventory |
| TSCA | : | All substances listed as active on the TSCA inventory |
| AIIC | : | On the inventory, or in compliance with the inventory |
| DSL | : | All components of this product are on the Canadian DSL |
| ENCS | : | On the inventory, or in compliance with the inventory |
| ISHL | : | Not in compliance with the inventory |
| KECI | : | On the inventory, or in compliance with the inventory |
| PICCS | : | On the inventory, or in compliance with the inventory |
| IECSC | : | On the inventory, or in compliance with the inventory |
| EINECS / CH | : | The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory |
| REACH | : | On the inventory, or in compliance with the inventory |
| TECI | : | Not in compliance with the inventory |

**15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

## SECTION 16: Other information

**Full text of H-Statements**

H372 : Causes damage to organs through prolonged or repeated exposure if inhaled.

**Full text of other abbreviations**

STOT RE : Specific target organ toxicity - repeated exposure
2004/37/EC : Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
DE TRGS 527 : Germany. TRGS 527 - Activities with nanomaterials
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.
2004/37/EC / TWA : Long term exposure limit
DE TRGS 527 / BM : Assessment scale
DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

Training advice : Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as

required under applicable regulations.

Other information : In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)
In 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012).
In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk…" (SCOEL SUM Doc 94-final, June 2003).
A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from http://www.nepsi.eu and provide useful information and guidance for the handling of products containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.
Works involving exposure to respirable crystalline silica dust generated by a work process are included in Directive (EU) 2017/2398 of 12 December 2017 amending Directive 2004/37/EC on the Protection of Workers from the risks related to exposure to Carcinogens or Mutagens at work.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

DE / EN