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

### 1.1 Product identifier

- Trade name: TIXOSIL® 38
- Chemical name: Silicon dioxide
- Synonyms: Precipitated synthetic amorphous silica
- CAS-No.: 112926-00-8

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

**Uses of the Substance/Mixture**

- Food/ feedstuff additives
- Manufacture
- Agriculture, forestry, fishery
- Manufacture of rubber products

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

**Company**

Solvay (China) Co., Ltd
No. 3966 Jindu Road, Xinzhuang Industrial Zone, Shanghai, China
Tel. : +86.21.2408 9100

RHODIA OPERATIONS S.A.S.
25 RUE DE CLICHY
F-75009 PARIS
TEL +33 140758000
FAX +33 145635728

**E-mail address**

manager.sds@solvay.com

### 1.4 Emergency telephone number

+84 28 4458 2388 [CareChem 24]
MULTI LINGUAL EMERGENCY NUMBER (24/7)
Europe/Latin America/Africa : +44 1235 239 670 (UK)
Middle East/Africa speaking Arabic : +44 1235 239 671 (UK)
Asia Pacific : +65 3158 1074 (Singapore)
China : +86 512 8090 3042
North America : +1 800 424 9300

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Government decree No. 108/2008/ND-CP detailing and guiding a number of articles of the law on chemicals, circular No. 04/2012/TT-BCT of the ministry of trade and industry : Regulation on classification and labelling of chemicals (GHS 2009)**

- Not classified as hazardous product under the regulation above.

### 2.2 Label elements

**Government decree No. 108/2008/ND-CP detailing and guiding a number of articles of the law on chemicals, circular No. 04/2012/TT-BCT of the ministry of trade and industry : Regulation on classification and labelling of chemicals (GHS 2009)**

- Not labelled as hazardous product under the above regulation.

### 2.3 Other hazards which do not result in classification

- Mild respiratory irritant.
- By mechanical effect
- Slightly irritating to eyes and skin.
- NO particular fire or explosion hazard.
- Electrostatic charges may build up by swirling, pneumatic transport, pouring, etc.

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

**Information on Components and Impurities**

| Chemical name | CAS-No. | Identification number | GHS Classification | Concentration [%] |
|---|---|---|---|---|
| Alternative CAS N°: 7631-86-9 | | | | |
| Precipitated synthetic amorphous silica | 112926-00-8 | Not applicable | Not classified | >= 97 |
| Disodium sulfate | 7757-82-6 | Not applicable | Not classified | <= 3 |

**Remarks**

- Results are expressed in relation to the dry product.

### 3.2 Mixture

- Not applicable, this product is a substance.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**In case of inhalation**

- Move to fresh air.
- Keep at rest.
- If symptoms persist, call a physician.

**In case of skin contact**

- If on skin, rinse well with water.
- If skin irritation persists, call a physician.

**In case of eye contact**

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a physician

**In case of ingestion**

- Rinse mouth with water.
- If symptoms persist, call a physician.

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

**Effects**

- Skin contact may aggravate existing skin disease
- Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis

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

**Notes to physician**

- Treat symptomatically.
- There is no specific antidote available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

- All extinguishing agents can be used.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

- None known.

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

**Specific hazards during firefighting**

- Not combustible.
- Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.

**Hazardous combustion products:**

- No hazardous combustion products are known

### 5.3 Advice for firefighters

**Special protective equipment for firefighters**

- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Wear self-contained breathing apparatus for firefighting if necessary.

**Specific fire fighting methods**

- Use appropriate means for fighting adjacent fires.

## SECTION 6: Accidental release measures

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

- Avoid contact with eyes
- Safety glasses
- Personal protective equipment
- Respirator with a particle filter (EN 143)

### 6.2 Environmental precautions

- No harmful effect to the environment is known or expected under normal conditions of use.

### 6.3 Methods and materials for containment and cleaning up

***Recovery***

- Sweep up and shovel into suitable containers for disposal.

***Decontamination/cleaning***

- Wash off with plenty of water.

***Disposal***

- Treat recovered material as described in the section "Disposal considerations".

**Additional advice**

- Avoid dust formation.

### 6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
- Ensure all equipment is electrically grounded before beginning transfer operations.

- Avoid dust formation.

**Hygiene measures**

- Handle in accordance with good industrial hygiene and safety practice.

**Dust explosion class**

- St0

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

**Technical measures/Storage conditions**

- Do not stack big-bags

- Protect from moisture.
- Store away from heat.

**Packaging material**

**Suitable material**
- Polypropylene bags
- Paper bags

### 7.3 Specific end use(s)

- no data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Components with other occupational exposure limits**

| Components | Value type | Value | Basis |
|---|---|---|---|
| Precipitated synthetic amorphous silica | TWA | 4 mg/m3 | Solvay Acceptable Exposure Limit |

### 8.2 Exposure controls

**Control measures**

**Engineering measures**

- Apply technical measures to comply with the occupational exposure limits.

- Local exhaust
- Dust must be extracted directly at the point of origin.

**Individual protection measures**

**Respiratory protection**

- Use a respirator with an approved filter if a risk assessment indicates this is necessary.
- Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate local standard(s):
- Respirator with a dust filter

**Hand protection**

- For prolonged or repeated contact use protective gloves.

**Eye protection**

- Safety glasses

**Skin and body protection**

- Long sleeved clothing

**Hygiene measures**

- Handle in accordance with good industrial hygiene and safety practice.

**Protective measures**

- The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| **Appearance** | Form: | Milled powder |
| | Physical state: | solid |
| | Colour: | white |
| | Particle size: | 5 - 20 µm |
| **Odour** | None | |
| **Odour Threshold** | Not applicable | |
| **Molecular weight** | 60.2 g/mol | |
| **pH** | 5.0 - 9.0 ( 5 % (m/m)) (aqueous suspension) | |
| **Melting point/freezing point** | Melting point/range: > 1,700 °C | |
| **Initial boiling point and boiling range** | Not applicable | |

| | |
|---|---|
| **Sublimation point** | Not applicable |
| **Flash point** | Not applicable (non-flammable solid) |
| **Evaporation rate (Butylacetate = 1)** | Not applicable |
| **Flammability (solid, gas)** | Not applicable |
| **Flammability/Explosive limit** | Lower flammability/explosion limit:<br>Not applicable<br><br>Upper flammability/explosion limit:<br><br>Not applicable |
| **Auto-ignition temperature** | not auto-flammable |
| **Vapour pressure** | Not applicable |
| **Vapour density** | Not applicable |
| **Density** | 2.1 g/cm3<br>Intrinsic<br><br>Bulk density: 100 - 250 kg/m3<br>Packaged Product |
| **Relative density** | No data available |
| **Solubility** | Water solubility:<br>120 - 160 mg/l ( 20 °C)<br><br>Solubility in other solvents:<br>No data available |
| **Partition coefficient: n-octanol/water** | Not applicable |
| **Decomposition temperature** | Not applicable |
| **Viscosity** | Viscosity, dynamic : Not applicable<br><br>Viscosity, kinematic : Not applicable |
| **Explosive properties** | Not applicable |
| **Oxidizing properties** | Not considered as oxidizing |

**9.2 Other information**

| | |
|---|---|
| **Oxidation/Reduction Potential** | Not applicable |
| **Hygroscopicity** | hygroscopic |
| **Dust explosion constant** | Particle size < 63µm<br>St0 |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- No hazards to be specially mentioned.

### 10.2 Chemical stability

- Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

**spontaneous polymerisation**
- Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

- None known.

### 10.5 Incompatible materials

- Chlorine trifluoride
- Fluorine
- Hydrogen fluoride
- Oxygen Difluoride
- Strong oxidizing agents

### 10.6 Hazardous decomposition products

- No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

| | |
|---|---|
| **Acute oral toxicity** | LD50 : > 5,000 mg/kg - Rat<br>Unpublished reports |
| **Acute inhalation toxicity** | Risk of physical blockage of the upper respiratory tract<br>By analogy<br>An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration. |
| **Acute dermal toxicity** | LD50 > 5,000 mg/kg - Rabbit<br>Unpublished reports |
| **Acute toxicity (other routes of administration)** | No data available |
| **Skin corrosion/irritation** | Prolonged or repeated contact may dry skin and cause irritation. |
| **Serious eye damage/eye irritation** | Dust contact with the eyes can lead to mechanical irritation. |
| **Respiratory or skin sensitisation** | Humans<br>no cutaneous sensitisation reaction observed<br>Unpublished reports |

**Mutagenicity**

| | |
|---|---|
| **Genotoxicity in vitro** | In vitro tests did not show mutagenic effects<br>Unpublished reports |
| **Genotoxicity in vivo** | In vivo tests did not show mutagenic effects<br>Unpublished reports |
| **Carcinogenicity** | Rat<br>Oral exposure<br>Animal testing did not show any carcinogenic effects.<br>Unpublished reports<br><br>Mouse<br>Oral exposure<br>Animal testing did not show any carcinogenic effects.<br>Unpublished reports |

**Toxicity for reproduction and development**

| | |
|---|---|
| **Toxicity to reproduction/Fertility** | Fertility and developmental toxicity tests did not reveal any effect on reproduction., Unpublished reports |

**Developmental Toxicity/Teratogenicity**

| | |
|---|---|
| Precipitated synthetic amorphous silica | Rat, , Oral<br>General Toxicity Maternal NOAEL: 1,350 mg/kg bw/day<br>Teratogenicity NOAEL:1,350mg/kg bw/day<br>Method: OECD Test Guideline 414<br>no embryotoxic or teratogenic effects have been observed, Unpublished reports<br><br>Mouse, , Oral<br>General Toxicity Maternal NOAEL: 1,340 mg/kg bw/day<br>Teratogenicity NOAEL:1,340mg/kg bw/day<br>Method: OECD Test Guideline 414<br>no embryotoxic or teratogenic effects have been observed, Unpublished reports |
| Disodium sulfate | Rat, male and female, Gavage<br>General Toxicity Maternal NOAEL: 160 mg/kg<br>Teratogenicity NOAEL:160mg/kg<br>Method: OECD Test Guideline 414<br>Unpublished reports, no embryotoxic or teratogenic effects have been observed |

**STOT**

| | |
|---|---|
| **STOT - single exposure** | The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. |
| **STOT - repeated exposure** | The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.<br><br>If inhaled No irreversible effect or symptom of silicosis was observed during the inhalation toxicity tests.<br>Unpublished reports<br><br>Oral exposure No irreversible effects were observed during chronic oral toxicity tests.<br>Unpublished reports |

**Neurological effects** No neurotoxic effects observed.

**Experience with human exposure**

**Experience with human exposure : Inhalation**

Mild respiratory irritant.
Unpublished reports

**Aspiration toxicity** Not applicable

**Components with workplace control parameters**

For information related to Occupational Exposure Limits, please refer to section 8.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic Compartment**

**Acute toxicity to fish**

LC50 - 96 h : > 10,000 mg/l - Danio rerio (zebra fish)
Unpublished reports

**Acute toxicity to daphnia and other aquatic invertebrates**

EC50 - 24 h : > 1,000 mg/l - Daphnia magna (Water flea)
Unpublished reports

**Toxicity to aquatic plants**

Precipitated synthetic amorphous silica

By analogy

EL50 - 72 h : > 10,000 mg/l - Desmodesmus subspicatus (green algae)
static test
End point: Growth rate
Method: OECD Test Guideline 201
No quantifiable LC/LL50 or EC/EL50 at the limit of solubility
Freshwater species
Result expressed in nominal loading rate (product tested as a saturated solution or as a WAF/WSF)
Unpublished reports

By analogy

NOELR - 72 h : 10,000 mg/l - Desmodesmus subspicatus (green algae)
static test
End point: Growth rate
Method: OECD Test Guideline 201
No quantifiable EC/EL10 or NOEC/NOELR at the limit of solubility
Freshwater species
Result expressed in nominal loading rate (product tested as a saturated solution or as a WAF/WSF)
Unpublished reports

**Toxicity to microorganisms** No data available

**Chronic toxicity to fish** No data available

| | |
|---|---|
| **Chronic toxicity to daphnia and other aquatic invertebrates** | No data available |

## 12.2 Persistence and degradability

**Abiotic degradation**

**Stability in water**

| | |
|---|---|
| Disodium sulfate | Structure-activity relationship (SAR), Expert judgement, non-significant hydrolysis |

**Photodegradation**

| | |
|---|---|
| Precipitated synthetic amorphous silica | Photodegradation<br>The product is chemically stable.<br>Not expected |

| | |
|---|---|
| **Physical- and photo-chemical elimination** | No data available |

**Biodegradation**

| | |
|---|---|
| **Biodegradability** | Inert mineral product. Not degradable. |

**Degradability assessment**

| | |
|---|---|
| Disodium sulfate | The product is not considered to be rapidly degradable in the environment |

## 12.3 Bioaccumulative potential

**Partition coefficient: n-octanol/water**

| | |
|---|---|
| Disodium sulfate | Not applicable (inorganic substance) |

| | |
|---|---|
| **Bioconcentration factor (BCF)** | Not bioaccumulable.<br>Published data |

## 12.4 Mobility in soil

**Adsorption potential (Koc)**

| | |
|---|---|
| Precipitated synthetic amorphous silica | Mobility<br>Soil/sediments<br>complexation/precipitation<br><br>Solubility(ies)<br>Water<br>non-significant hydrolysis<br><br>Volatility<br>Air |

| | |
|---|---|
| **Known distribution to environmental compartments** | Ultimate destination of the product : Soil<br><br>Ultimate destination of the product : Sediment |

### 12.5 Results of PBT and vPvB assessment

| | |
|---|---|
| Precipitated synthetic amorphous silica | Not applicable (inorganic substance) |
| Disodium sulfate | Not applicable (inorganic substance) |

### 12.6 Other adverse effects

**Ecotoxicity assessment**

| | |
|---|---|
| **Short-term (acute) aquatic hazard** | The product does not have any known adverse effects on the aquatic organisms tested |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product Disposal**

***Prohibition***

- Should not be released into the environment.
- Dispose of in accordance with local regulations.

**Advice on cleaning and disposal of packaging**

- Cleaning is not required prior to disposal.
- Dispose of in accordance with local regulations.

## SECTION 14: Transport information

**Inland waterway transport (ADN)**
not regulated

**ADR**
not regulated

**RID**
not regulated

**IMDG**
not regulated

**IATA**
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

## SECTION 15: Regulatory information

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

**Local regulations**

No data available

**Notification status**

| Inventory Information | Status |
|---|---|
| United States TSCA Inventory | - All substances listed as active on the TSCA inventory |
| Canadian Domestic Substances List (DSL) | - Listed on Inventory |
| Australia Inventory of Chemical Substances (AICS) | - Listed on Inventory |
| Japan. CSCL - Inventory of Existing and New Chemical Substances | - Listed on Inventory |
| Korea. Korean Existing Chemicals Inventory (KECI) | - Listed on Inventory |
| China. Inventory of Existing Chemical Substances in China (IECSC) | - Listed on Inventory |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | - Listed on Inventory |
| Taiwan Chemical Substance Inventory (TCSI) | - Listed on Inventory |
| New Zealand. Inventory of Chemical Substances | - All components are listed on the NZIOC inventory. The HSNO status of the product has not been assessed. |
| EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH) | - When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information. |

**Additional Information**

- for USA Inventory (TSCA) purposes, this product is identified as: silicon dioxide (CAS-No. : 7631-86-9)

## SECTION 16: Other information

**Key or legend to abbreviations and acronyms used in the safety data sheet**

- SAEL Solvay Acceptable Exposure Limit
- TWA Long-term exposure limit (8-hour TWA reference period)

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.