

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name ZEOSIL 142

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance / Mixture**

- Additive for industrial applications

1.3 Details of the supplier of the safety data sheet**Company**

Solvay USA Inc.,
SILICA
8 Cedar Brook Drive
Cranbury, NJ, 08512-7500, US
Telephone number: 800-515-6065

Distributed By:

R.E. Carroll, Inc.
1570 North Olden Avenue
Trenton, N.J. 08638-3204
609-695-6211/800-257-9365
www.recarroll.com

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture**HCS 2012 (29 CFR 1910.1200)**

- Not a hazardous product according to the OSHA Globally Harmonized System (GHS)

2.2 Label elements**HCS 2012 (29 CFR 1910.1200)**

- Not a hazardous product according to the OSHA Globally Harmonized System (GHS)

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**

Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Results are expressed in relation to the dry product. Alternative CAS #: 7631-86-9		
Synthetic amorphous silica	112926-00-8	>= 99

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Non Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Sulfuric acid sodium salt (1:2)	7757-82-6	<= 1

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

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures

Flash point	Not applicable (nonflammable solid)
Autoignition temperature	not auto-flammable
Flammability / Explosive limit	Lower flammability/explosion limit : Not applicable Upper flammability/explosion limit : Not applicable

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 fire fighting**

- 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 fire-fighters**

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

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
- Respiratory protection

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.
- Recover the cleaning water for subsequent disposal.

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

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

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

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters**Components with workplace occupational exposure limits**

Ingredients	Value type	Value	Basis
Synthetic amorphous silica			Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	See table Z-3		
Synthetic amorphous silica	TWA	20 Million particles per cubic foot	Occupational Safety and Health Administration - Table Z-3 Mineral Dusts
	Form of exposure : Dust Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques., mppcf X 35.3 = million particles per cubic meter = particles per c.c Expressed as :Silica		
Synthetic amorphous silica	TWA	80mg/m3 / %SiO ₂	Occupational Safety and Health Administration - Table Z-3 Mineral Dusts
	Form of exposure : Dust Expressed as :Silica		
Synthetic amorphous silica	TWA	6 mg/m3	National Institute for Occupational Safety and Health
	Expressed as :Silica		
Particulates not otherwise regulated	PEL	15 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : Total dust		
Particulates not otherwise regulated	PEL	5 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : Respirable fraction		

8.2 Exposure controls**Control measures****Engineering measures**

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
- Local exhaust
- Dust must be extracted directly at the point of origin.

Individual protection measures

Respiratory protection

- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- 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

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
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- Eye contact should be prevented through the use of:
- Safety glasses

Skin and body protection

- Long sleeved clothing

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures

- The protective equipment must be selected in accordance with current local 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

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

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

Form: Milled powder
Physical state: solid
Color: white

Particle size

5 - 20 µm

Odor

None.

Odor Threshold

Not applicable

<u>pH</u>	5.0 - 9.0 (5 % (m / m)) (aqueous suspension)
<u>Melting point/range</u>	> 3,092 °F (> 1,700 °C)
<u>Boiling point/boiling range</u>	Not applicable
<u>Sublimation point</u>	Not applicable
<u>Flash point</u>	Not applicable (nonflammable solid)
<u>Evaporation rate (Butylacetate = 1)</u>	Not applicable
<u>Flammability (solid, gas)</u>	Not applicable
<u>Flammability / Explosive limit</u>	<u>Lower flammability/explosion limit:</u> Not applicable <u>Upper flammability/explosion limit:</u> Not applicable
<u>Autoignition temperature</u>	not auto-flammable
<u>Vapor pressure</u>	Not applicable
<u>Vapor density</u>	Not applicable
<u>Density</u>	2.1 g/cm ³ Intrinsic <u>Bulk density:</u> 100 - 250 kg/m ³ Packaged Product
<u>Solubility</u>	<u>Water solubility :</u> 120 - 160 mg/l (68 °F (20 °C)) <u>Solubility in other solvents:</u> no data available
<u>Partition coefficient: n-octanol/water</u>	Not applicable
<u>Thermal decomposition</u>	Not applicable
<u>Viscosity</u>	<u>Viscosity, dynamic :</u> Not applicable <u>Viscosity, kinematic :</u> Not applicable
<u>Explosive properties</u>	Not applicable
<u>Oxidizing properties</u>	Not considered as oxidizing.

9.2 Other information

<u>Oxidation / Reduction Potential</u>	Not applicable
<u>Hygroscopicity</u>	hygroscopic
<u>Molecular weight</u>	60.2 g/mol

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 polymerization**
- Hazardous polymerization 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 Unpublished reports
Acute inhalation toxicity	Risk of physical blockage of the upper respiratory tract By analogy 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 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 sensitizationHumans
no cutaneous sensitization reaction observed
Unpublished reports**Mutagenicity****Genotoxicity in vitro**In vitro tests did not show mutagenic effects
Unpublished reports**Genotoxicity in vivo**In vivo tests did not show mutagenic effects
Unpublished reports**Carcinogenicity**Rat
Oral exposure
Animal testing did not show any carcinogenic effects.
Unpublished reportsMouse
Oral exposure
Animal testing did not show any carcinogenic effects.
Unpublished reports

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH**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**

Synthetic amorphous silica

Rat
Developmental Toxicity
no observed effectMouse
Developmental Toxicity
no observed effect**STOT****STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant,

repeated exposure.

If inhaled No irreversible effect or symptom of silicosis were observed during the inhalation toxicity tests.
Unpublished reports

Oral exposure No irreversible effects were observed during chronic oral toxicity tests.
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

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

12.2 Persistence and degradability

Abiotic degradation

Photodegradation

Synthetic amorphous silica

Photodegradation
The product is chemically stable.
Not expected

Biodegradation

Biodegradability

Inert mineral product. Not degradable.

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)

Not bioaccumulable.
Published data

12.4 Mobility in soil**Adsorption potential (Koc)**

Synthetic amorphous silica

Mobility
Soil/sediments
complexation/precipitationSolubility(ies)
Water
non-significant hydrolysisVolatility
Air**Known distribution to environmental compartments**

Ultimate destination of the product: Soil

Ultimate destination of the product: Sediment

12.5 Results of PBT and vPvB assessment no data available**12.6 Other adverse effects** no data available**Ecotoxicity assessment****Acute aquatic toxicity**

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**

- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Prohibition

- Should not be released into the environment.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – NO

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**DOT**

not regulated

TDG

not regulated

NOM

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 transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL.
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- On the inventory, or in compliance with the inventory
Taiwan. Chemical Substance Inventory (TCSI)	- Listed on Inventory
Mexico INSQ (INSQ)	- Listed on Inventory

Additional Information

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

15.2 Federal Regulations**US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	no

Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

15.3 State Regulations**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information**NFPA (National Fire Protection Association) - Classification**

Health	1 slight
Flammability	0 minimal
Instability or Reactivity	0 minimal

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	1 slight
Flammability	0 minimal
Reactivity	0 minimal
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.

Date Prepared: 05/28/2015

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

- PEL Permissible exposure limit (PEL)
- TWA Time weighted average

-	ACGIH	American Conference of Governmental Industrial Hygienists
-	OSHA	Occupational Safety and Health Administration
-	NTP	National Toxicology Program
-	IARC	International Agency for Research on Cancer
-	NIOSH	National Institute for Occupational Safety and Health

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.