

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: 3000 Course
Product code	: 3000 Blend
Formula	: SiO ₂
Synonyms	: MILLISIL M10 / MILLISIL M4 / MILLISIL M6 / MILLISIL M8 / MILLISIL NW6 / MILLISIL NW8 / quartz (SiO ₂) / quartz flour, conc respirable crystalline silica>=10% / SIKRON M300 / SIKRON M400 / SIKRON M500 / SIKRON M600
Other means of identification	: 3000 Course /50R
BIG no	: 51142

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

Use of the substance/mixture	: industrial use: component Paint: component Adhesive: component Chemical substance for research
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1.3. Details of the supplier of the safety data sheet

Protective Industrial Polymers
7875 Bliss Parkway
North Ridgeville, Ohio 44039 - USA-Ohio
T 440-327-0015
www.protectpoly.com

1.4. Emergency telephone number

Emergency number : Chemtrec: 800-427-9300 (Outside USA) 703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Carcinogenicity H350
Category 1A
Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	: H350 - May cause cancer (Inhalation)
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves P308+P313 - If exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container to in accordance with local regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substance

Name : 3000 Course

Name	Product identifier	%	GHS-US classification
Silicon Dioxide	(CAS No) 14808-60-7	98 - 100	Carc. 1A, H350
Aluminum Oxide (Non-Fibrous)	(CAS No) 1344-28-1	< 1.1	Not classified
Iron Oxide	(CAS No) 1309-37-1	< 0.1	Not classified
Titanium Dioxide	(CAS No) 13463-67-7	< 0.1	Carc. 2, H351

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Not applicable.
- First-aid measures after eye contact : Rinse with water. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell.

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

- Symptoms/injuries after inhalation : Slight irritation. EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. ON CONTINUOUS EXPOSURE/CONTACT: Respiratory difficulties.
- Symptoms/injuries after skin contact : Dry skin.
- Symptoms/injuries after eye contact : Slight irritation.
- Symptoms/injuries after ingestion : No data available.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Lung tissue affection/degeneration.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Adapt extinguishing media to the environment.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : DIRECT FIRE HAZARD. Non combustible.
- Explosion hazard : DIRECT EXPLOSION HAZARD. No direct explosion hazard.
- Reactivity : No data available.

5.3. Advice for firefighters

- Firefighting instructions : No specific fire-fighting instructions required.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. Wash contaminated clothes.
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
- Methods for cleaning up : Stop dust cloud by humidifying. Scoop solid spill into closing containers. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Avoid raising dust. Observe very strict hygiene - avoid contact. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Conditions for safe storage, including any incompatibilities

- Heat-ignition : No data available.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) bases.
- Storage area : Store in a dry area. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: paper. synthetic material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)
OSHA	Remark (OSHA)	(3) See Table Z-3.
Silicon Dioxide (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)
OSHA	Remark (OSHA)	(3) See Table Z-3.
Aluminum Oxide (Non-Fibrous) (1344-28-1)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (Aluminium, insoluble compounds; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)
Not applicable		
Iron Oxide (1309-37-1)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ (Iron oxide (Fe ₂ O ₃); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)
ACGIH	Remark (ACGIH)	Pneumoconiosis
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³
Titanium Dioxide (13463-67-7)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (Titanium dioxide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	LRT irr; A3
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³

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8.2. Exposure controls

Materials for protective clothing	: GIVE GOOD RESISTANCE: butyl rubber. PVC.
Hand protection	: Gloves.
Eye protection	: Safety glasses. In case of dust production: protective goggles.
Skin and body protection	: Protective clothing.
Respiratory protection	: Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder.
Color	: Colourless to white
Odor	: Odourless
Odor threshold	: No data available
pH	: 6 - 7
Melting point	: 1610 °C
Freezing point	: No data available
Boiling point	: 2230 °C
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: < 0.1 hPa (20 °C)
Relative density	: 2.6
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 2650 kg/m ³
Molecular mass	: 60.08 g/mol
Solubility	: Insoluble in water. Substance sinks in water. Insoluble in organic solvents. Soluble in hydrogenfluoride. Water: insoluble
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

VOC content	: 0 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Aluminum Oxide (Non-Fibrous) (1344-28-1)	
LD50 oral rat	> 15900 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
Iron Oxide (1309-37-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
Titanium Dioxide (13463-67-7)	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value)

Skin corrosion/irritation : Not classified
pH: 6 - 7

Serious eye damage/irritation : Not classified
pH: 6 - 7

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer (Inhalation).

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IARC group	1 - Carcinogenic to humans
Silicon Dioxide (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Iron Oxide (1309-37-1)	
IARC group	3 - Not classifiable
Titanium Dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Slight irritation. EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing. ON CONTINUOUS EXPOSURE/CONTACT: Respiratory difficulties.

Symptoms/injuries after skin contact : Dry skin.

Symptoms/injuries after eye contact : Slight irritation.

Symptoms/injuries after ingestion : No data available.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Lung tissue affection/degeneration.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.1.

Ecology - water : No water pollutant (surface water).

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Aluminum Oxide (Non-Fibrous) (1344-28-1)	
LC50 fish 1	> 100 mg/l (NOEC; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo trutta; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 100 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
Threshold limit algae 1	> 100 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)
Iron Oxide (1309-37-1)	
LC50 fish 1	> 1000 mg/l (LC50; 48 h)
Titanium Dioxide (13463-67-7)	
EC50 Daphnia 1	> 100 mg/l (LC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Weight of evidence)
Threshold limit algae 1	61 mg/l (EC50; Other; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

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Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Silicon Dioxide (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Aluminum Oxide (Non-Fibrous) (1344-28-1)	
Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Iron Oxide (1309-37-1)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Titanium Dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Aluminum Oxide (Non-Fibrous) (1344-28-1)	
Bioaccumulative potential	No bioaccumulation data available.
Iron Oxide (1309-37-1)	
Bioaccumulative potential	No bioaccumulation data available.
Titanium Dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove to an authorized dump (Class I).

Additional information : LWCA (the Netherlands): KGA category 05. Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

TDG Proper Shipping Name : Not Regulated

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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Listed on the United States TSCA (Toxic Substances Control Act) inventory

Silicon Dioxide (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aluminum Oxide (Non-Fibrous) (1344-28-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

Iron Oxide (1309-37-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Titanium Dioxide (13463-67-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

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Listed on IARC (International Agency for Research on Cancer)

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Silicon Dioxide (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

Titanium Dioxide (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

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State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List
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Titanium Dioxide (13463-67-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

Silicon Dioxide (14808-60-7)

U.S. - New Jersey - Right to Know Hazardous Substance List

Aluminum Oxide (Non-Fibrous) (1344-28-1)

U.S. - New Jersey - Right to Know Hazardous Substance List

Iron Oxide (1309-37-1)

U.S. - New Jersey - Right to Know Hazardous Substance List

Titanium Dioxide (13463-67-7)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : Disclaimer: This SDS to the best of our knowledge conforms to the requirements of OSHA 20 CFR 1910.1200 and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace.

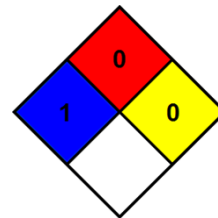
Full text of H-phrases:

H350	May cause cancer
H351	Suspected of causing cancer

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product