

## SOLTEX Hydrophobic Fumed Silica FS2100P, FS2120P

### Safety Data Sheet

According to the United States 2012 OSHA Hazardous Communication Standard (29 CFR 1910.1200)

Revision Date: 07/18/2019

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Version: 1.0

## SECTION 1: IDENTIFICATION

### Product Identifier

**Synonyms:** Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica.

**Product Name:** SOLTEX FS2100P, FS2120P.

**Intended Use of the Product** Various, Rheological control, Flow agent, Thickening agent, Glossing or Matting agent, Reinforcing agent in: Coatings, Adhesives and/or sealants, Inks, Silicone Elastomer, Rubber products, Suspension, Dispersion, Paints, Cosmetics, Hygiene and Sanitary products, Other.

### Name, Address, and Telephone of the Responsible Party

#### Company

Soltex, Inc. (Synthetic Oils & Lubricants of Texas)

3707 FM 1960 W Ste. 560

Houston, TX 77068

(281)-587-0900

[soltexinc.com](http://soltexinc.com)

### Emergency Telephone Number

**Emergency Number** : (800)-424-9300 (CHEMTREC); (281)-587-0900 (Other Safety Information)

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

**GHS-US/CA Classification** : This chemical is considered hazardous by the US 2012 OSHA Hazardous Communication Standard (29 CFR 1910.1200)

**Combustible dust**

### Label Elements

#### GHS-US/CA Labeling

**Hazard Pictograms (GHS-US/CA)** : None.

**Signal Word (GHS-US/CA)** : Warning.

**Hazard Statements (GHS-US/CA)** : May form combustible dust concentrations in air.

**Precautionary Statements (GHS-US/CA)** : Keep away from all ignition sources including heat, sparks, and flame. Prevent dust accumulations to minimize explosion hazard.

### Potential health effects

#### Principle Routes of Exposure:

Inhalation, Skin Contact, Eye contact.

#### Eye Contact:

May cause mechanical irritation. Avoid contact with eyes.

#### Skin Contact:

May cause mechanical irritation and skin drying. Avoid contact with skin. No cases of sensitization in humans have been reported.

#### Inhalation:

Dust may be irritating to respiratory tract. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.

#### Ingestion:

Adverse health effects are not expected. See Section 11.

#### Carcinogenicity:

Does not contain any substances greater than 0.1% listed by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference for Governmental Industrial Hygienists) or EU (European Union). See also Section 11.

#### Target Organ Effects:

Lungs, See Section 11

#### Medical Conditions Aggravated by

Asthma, Respiratory disorder

#### Exposure:

**Potential Environmental Effects:** None known. See Section 12.

### Hazards not otherwise classified (HNOC)

Do not expose to temperatures above 150°C. Hazardous products of combustion can include carbon monoxide and carbon dioxide.

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica

**Name:** Soltex Hydrophobic Fumed Silica FS2110D.

Name	Product Identifier	Weight %	GHS Ingredient Classification
Siloxanes and Silicones, di-Me, reaction products with silica	(CAS No) 67762-90-7	100	Combustible dust

### SECTION 4: FIRST AID MEASURES

#### Description of First-aid Measures

**Inhalation:** If coughing, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.

**Ingestion:** Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

**Contact skin/eyes:** Wash thoroughly with soap and water. Seek medical attention if symptoms develop. Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if symptoms develop.

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

**Symptoms:** The most important known symptoms and effects are described in Section 2 and/or in Section 11.

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

**Note to physicians:** Treat symptomatically.

### SECTION 5: FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water. Dry chemical. Carbon dioxide (CO<sub>2</sub>). Foam. A fog is recommended if water is used.

**Unsuitable Extinguishing Media:** DO NOT USE high pressure media which could cause formation of a potentially explosible dust-air mixture.

**Specific hazards arising from the chemical:** May release formaldehyde when heated to high temperatures in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.

**Hazardous combustion products:** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>), Formaldehyde.

#### Protective equipment and

**Precautions for firefighters:** Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus.

**Risk of Dust Explosion:** Dust may form explosive mixture in air. See also Section 9.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions:** Avoid dust formation. Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment. See also Section 8.

**For emergency responders:** Use personal protection recommended in Section 8.

**Environmental Precautions:** Contain spilled product on land, if possible. Local authorities should be advised if significant spillages cannot be contained.

#### Methods and material for containment and cleaning up

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** If the spilled material contains dust or has the potential to create dust, use explosion-proof vacuums and/or cleaning systems suitable for combustible dusts. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Dry sweeping is not recommended. Pick up and transfer to properly labelled containers. . See Section 13.

### SECTION 7: HANDLING AND STORAGE

#### Precautions for safe handling

**Advice on safe handling:** Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Dust may form explosible mixture in air. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions:** Keep containers tightly closed in a dry and well-ventilated place. Do not store together with volatile chemicals as they may be adsorbed onto product. Store at ambient conditions. Keep in properly labeled containers.  
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosible mixture if they are released in the atmosphere in sufficient concentrations.

**Incompatible materials:** None known.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure guidelines:** There are no exposure limits identified for this product. Exposure limits for components are stated below.

**Amorphous Silica, The regulatory exposure limits are found under the general silica, CAS RN 7631-86-9:**

Australia:	2 mg/m <sup>3</sup> , TWA, Respirable
Austria MAK	4 mg/m <sup>3</sup> , TWA, Inhalable fraction
Finland:	5 mg/m <sup>3</sup>
Germany TRGS 900:	4 mg/m <sup>3</sup> , TWA, Inhalable fraction
India:	10 mg/m <sup>3</sup> , TWA
Ireland:	2.4 mg/m <sup>3</sup> , TWA, Respirable dust
Norway:	1.5 mg/m <sup>3</sup> , TWA, Respirable dust
Switzerland:	4 mg/m <sup>3</sup> , TWA
UK WEL:	6 mg/m <sup>3</sup> , TWA, Inhalable fraction / 2.4 mg/m <sup>3</sup> , TWA, Respirable fraction
US OSHA PEL:	6mg/m <sup>3</sup> (54 FR2701)

**Dust, or Particulates Not Otherwise Specified:**

Belgium:	10 mg/m <sup>3</sup> , TWA, Inhalable / 3 mg/m <sup>3</sup> TWA, Respirable
China:	8 mg/m <sup>3</sup> , TWA / 10 mg/m <sup>3</sup> , STEL
France:	10 mg/m <sup>3</sup> , TWA Inhalable dust / 5 mg/m <sup>3</sup> , TWA Respirable dust
Italy:	10 mg/m <sup>3</sup> , TWA, Inhalable / 3 mg/m <sup>3</sup> , TWA, Respirable
Malaysia:	10 mg/m <sup>3</sup> , TWA, Inhalable / 3 mg/m <sup>3</sup> , TWA, Respirable
Spain:	10 mg/m <sup>3</sup> , VLA, Inhalable / 3 mg/m <sup>3</sup> , VLA, Respirable
US ACGIH - PNOS:	10 mg/m <sup>3</sup> , TWA, Inhalable / 3 mg/m <sup>3</sup> , TWA, Respirable
US OSHA - PEL:	15 mg/m <sup>3</sup> , TWA, Total dust / 5 mg/m <sup>3</sup> , TWA, Respirable

MAK: Maximale Arbeitsplatzkonzentration (Maximum Workplace Concentration)

PEL: Permissible Exposure Limit

PNOS: Particulate Not Otherwise Specified

STEL: Short Term Exposure Limit

TRGS: Technische Regeln für Gefahrstoffe (Technical Rule for Hazardous Materials)

TWA: Time Weighted Average

US ACGIH: United States American Conference of Governmental Industrial Hygienists

US OSHA: United States Occupational Safety and Health Administration

VLA: Valore Limite Ambientales (Environmental Limit Value)

WEL: Workplace Exposure Limit

**Engineering Controls:** Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated.

### Personal protective equipment [PPE]

**Respiratory Protection:** Approved respirator may be necessary if local exhaust ventilation is not adequate.

**Hand Protection:** Wear protective gloves to prevent skin drying. Use protective barrier cream before handling the product. Wash hands and other exposed skin with mild soap and water.

**Eye/face Protection:** Wear eye/face protection. Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear suitable protective clothing. Wash clothing daily. Work clothing should not be allowed out of the workplace.

**Other:** Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

**Environmental exposure controls:** In accordance with all local legislation and permit requirements as applicable for dusts.

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: White powder
Odor	: None
Odor Threshold	: Not applicable
pH	: 4.0-7.0
Evaporation Rate	: Not applicable
Melting Point/Freezing Point Boiling	: 1700°C (NIOSH Pocket Guide to Chemical Hazards)
Point/Boiling Range	: 2230°C (NIOSH Pocket Guide to Chemical Hazards)
Flash Point	: Not applicable
Auto-ignition Temperature	: ≤750°C. ASTM E-1491 Dust Cloud Due to the low density of this product and the volume of the dispersion vessel, testing at a concentration above 600g/m <sup>3</sup> were unable to be performed. For this reason, the MAIT is reported less than or equal to 750°C. Higher concentrations may produce ignitions below 750°C (MAIT - Minimum Auto-Ignition Temperature)
Minimum Ignition Temperature	: >450°C. ASTM E-2021 Dust layer Neither of the tests conducted at a temperature of 450°C (the upper limit of the apparatus) met the criteria for ignition based on temperature rise. For this reason, the MIT was reported as > 450°C
Minimum Ignition Energy	: >1 J. ASTM E-2019
Ignition Energy	: Not available
Flammability (solid, gas)	: Not available
Explosion Limit in Air-Lower (g/m <sup>3</sup> )	: 300<MEC<400 (g/m <sup>3</sup> ). ASTM E-1515 (MEC - Minimum Explosible Concentration)
Explosion Limit in Air-Upper (g/m <sup>3</sup> )	: Not available
Maximum Absolute Explosion Pressure	: 5.22 bar/sec. ASTM E-1226 (20L Sphere Test)
Maximum Rate of Pressure Rise	: 140 bar/sec. ASTM E-1226 (20L Sphere Test)
Vapor Pressure	: Not applicable
Vapor Density	: Not applicable
Density	: Not available
Bulk Gravity	: Not available
Specific Gravity at 20°C	: Not available
Water Solubility	: Slightly soluble (According to OECD 105)
Solubility(ies)	: Not available
Partition Coefficient (N-Octanol/Water)	: Not applicable
Decomposition Temperature	: >400°C (Bulk Powder test- Diffusion cell)
Viscosity	: Not applicable
Oxidizing Properties	: No oxidizing properties
Softening Point	: Not applicable
VOC Content (%)	: Not applicable
Kst Value	: 38. ASTM E-1226 (20L Sphere Test)
Dust Explosion Classification	: ST1. Weak Explosion ASTM E-1226

End point is listed "not applicable" due to the inherent properties of the substance

"Not available" indicates testing has not been performed

### SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable under recommended handling and storage conditions.

Stable up to >400°C. No exotherm (Bulk Powder test - Diffusion cell).

**Reactivity:** Not reactive.

**Possibility of hazardous reactions:** None under normal processing.

**Conditions to avoid:** Do not expose to temperatures above 150°C. Keep away from heat and sources of ignition. Avoid dust formation. May release formaldehyde when heated to high temperatures in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.

**Hazardous polymerization:** Hazardous polymerization will not occur.

**Incompatible materials:** None known.

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

**Explosion data:** See Section 9.

**Sensitivity to Mechanical Impact:** None

**Sensitivity of Static Discharge:** Dust may form explosible mixture in air. Avoid dust formation. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.

**Hazardous decomposition products:** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Formaldehyde.

## SECTION 11: TOXICOLOGICAL INFORMATION

*Information given is based on data obtained from this substance or from similar substances.*

### Acute toxicity

**Oral LD50:** LD50/oral/rat = > 5000 mg/kg. No deaths occurred and no signs of toxicity were seen during the observation periods after single oral administration of the substance (OECD 423).

**Inhalation LC50:** Due to the product's physical characteristics, no suitable testing procedure is available.

**Dermal LD50:** No data is available on the product itself.  
Synthetic Amorphous Silica: LD50/dermal/rabbit = > 2000 mg/kg. Very slight transient erythema in one animal. No signs of systemic or organ toxicity (OECD 402).

**Skin corrosion/irritation:** Primary irritation index = 0/8 @ 24 hr. Not classified as an irritant (OECD 404).

**Serious eye damage/eye irritant:** Not classified as an irritant in rabbit studies (OECD 405). High dust concentrations may cause mechanical irritation.

**Sensitization:** No experimental animal data are available. No cases of sensitization in humans have been reported. Contains no known sensitizers. May release formaldehyde when heated to high temperatures in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.

**Mutagenicity:** Not mutagenic in Ames test. Negative in the chromosome aberration test in Chinese hamster ovary (CHO) cells.

**Carcinogenicity:** No data are available on the product itself.  
Synthetic Amorphous Silica: No evidence of carcinogenicity was observed in multiple animal species following repeated oral or inhalation exposure to amorphous silica. Similarly, epidemiology studies show no evidence of carcinogenicity in workers who manufacture amorphous silica.  
Treated Synthetic Amorphous Silica: No evidence of cancer in rats exposed for 24 months at 100 mg/kg/d (diet). (ECETOC JACC Report 051 - Synthetic Amorphous Silica, September 2006).

### Reproductive and

**Developmental Toxicity:** No effects on reproductive organs have been reported in animal toxicity studies. No developmental effects observed on progeny in dietary study (doses of 0 or 500 mg/kg/d). (ECETOC JACC Report 051 - Synthetic Amorphous Silica, September 2006).

**TOT-single exposure:** Specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

**STOT-single exposure:** No data are available on the product itself.  
Treated Synthetic Amorphous Silica: Repeated dose toxicity: oral (rat), 5 to 8 weeks, no significant treatment-related adverse effects at doses of up to 2000 mg/kg/d. (ECETOC JACC Report 051 - Synthetic Amorphous Silica, September 2006).  
Synthetic Amorphous Silica: Repeated dose toxicity: oral (rat), 2 weeks to 6 months, no significant treatment-related adverse effects at doses of up to 8% silica in the diet. Repeated dose toxicity: inhalation (rat), 13 weeks, Lowest Observed Effect Level (LOEL) = 1.3 mg/m<sup>3</sup> based on mild reversible effects in the lungs.  
Repeated dose toxicity: inhalation (rat), 90 days, LOEL = 1 mg/m<sup>3</sup> based on reversible effects in the lungs and effects in the nasal cavity.

**Based on available data, a STOT-RE classification is not warranted.**

**Aspiration Hazard:** Based on industrial experience and available data, no aspiration hazard is expected.

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

### SECTION 12: ECOLOGICAL INFORMATION

Information given is based on data from similar substances.

**Aquatic Toxicity:** Fish (Brachydanio rerio) LC50 (96 h): > 10,000 mg/l; (Method: OECD 203).  
No acute toxicity to Daphnia with EL and EL50 ranging from >1000 to 10,000 mg/L (OECD 202).

#### Pollutant potential

**Persistence and degradability:** The methods for determining biodegradability are not applicable to inorganic substances.  
**Bioaccumulation:** Not expected due to physicochemical properties of the substance.  
**Mobility:** Not expected to migrate.  
**Distribution to Environmental Compartments:** Not available.  
**Other adverse effects:** Not available.

### SECTION 13: DISPOSAL CONSIDERATIONS

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 3 of this SDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

**RCRA:** Unused product is not a hazardous waste under U.S. RCRA, 40 CFR 261.

#### **Unused and Uncontaminated**

**Product:** Product, as supplied, should be disposed of in accordance with the regulations issued by the appropriate federal, state and local authorities. Same consideration should be given to containers and packaging.

### SECTION 14: TRANSPORT INFORMATION

#### DOT

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

#### ICAO (air)

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

#### IATA

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

#### IMDG

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

#### RID

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

### ADR

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing Group	Not regulated

## SECTION 15: REGULATORY INFORMATION

This chemical is considered hazardous by the US 2012 OSHA Hazardous Communication Standard (29 CFR 1910.1200)

### US Federal Regulations

#### TSCA Section 12(b) Export Regulations

This product does not contain any chemicals which require export notification under TSCA 12(b).

#### SARA Section 302 (40 CFR 355) Extremely Hazardous Substances

No components are listed as extremely hazardous substances under SARA Section 302.

#### SARA 311/312 Hazard Categories

Acute Health Hazard	No	Sudden release of pressure hazard	No
Chronic Health Hazard	No	Reactive Hazard	No
Fire hazard	Yes		

See GHS classification in section 2 for applicable SARA 311/312 hazard categories under the revised 40 CFR 370 (June 13, 2016).

#### SARA Section 313 (40 CFR 372) Toxics Release Inventory

Does not contain any of the substances identified under Section 313 as toxic chemicals in excess of the de minimis concentrations necessary to be subject to the supplier notification requirements.

#### Clean Air Act Amendments of 1990 (CAA, Section 112, 40 CFR 82)

This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### US State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Louisiana:
Silica 7631-86-9	X	X	X	-

### Canada - WHMIS Classification (HPR, SOR/2015-17)

See Section 2 for Hazard Classification. This chemical is considered hazardous.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the M/SDS contains all the information required by the Hazardous Products Regulations.

# Soltex Hydrophobic Fumed Silica FS2100P, FS2120P

## Safety Data Sheet

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### International Regulations

Listed on the EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on TCSI (Taiwan Chemical Substance Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) Section 8(b) inventory

### **SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date** : 07/18/2019

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

#### **References:**

NIOSH Pocket Guide to Chemical Hazards, September 2005. "Silica, amorphous". DHHS (NIOSH) Publication No. 2005-149.  
National Technical Information Service, Springfield, VA. p. 277

*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.*