

Trade name Weberfloor PUC MFAS (Part A)

1 IDENTIFICATION OF HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product identifier

Trade name: Weberfloor PUC MFAS (Part A)

Substance: Polyurethane Self-Smoothing Screed

CAS No: Mixture

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Saint-Gobain (Singapore) Pte Ltd

2 Venture Drive, #13-18 Vision Exchange, Singapore 608526

Phone: +65 6330 8288

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Saint-Gobain Weber (M) Sdn Bhd

No 29 & 31, Jalan TIAJ 2/1, Taman Industri Alam Jaya,

42300 Bandar Puncak Alam, Selangor D E, Malaysia

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2 HAZARDS IDENTIFICATION

Hazard Classification

Not classified

Hazard Pictograms

No symbol

Signal Word

No signal words

Hazard Statements

Not Applicable

Precautionary Statements

Not Applicable

3 COMPOSITION AND INFORMATION OF THE INGREDIENTS

Chemical Name	CAS Number	%
Triglyceride	8001-79-4	50 ≤70
Di-isononyl phthalate	28553-12-0	20 ≥25
Propanoic acid, 2-methyl, monoester with 2,2,4-trimethyl-1, 3-pentenediol	25265-77-4	10 >3

4 FIRST AID MEASURES

Description of first aid measures

After inhalation:

Move affected person to fresh air. If breathing has stopped, perform artificial respiration. Seek medical advice if symptoms persist.

After skin contact:

Wash skin thoroughly with soap and water. Remove contaminated clothing. If symptoms persist, seek medical advice.

Trade name Weberfloor PUC MFAS (Part A)

After eye contact:

Rinse eyes immediately with plenty of clean water for at least 15 minutes and seek medical advice if irritation persists.

After swallowing:

Do not induce vomiting. Dilute with water. Seek medical attention immediately.

5 FIRE-FIGHTING MEASURES

Extinguishing media

In case of fire, use water spray (fog) foam, CO₂ or dry chemical.

Fire Fighting Instruction

Fire fighters should wear self-contained breathing apparatus and full protective gear.

Self Ignition

Not self igniting.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Wear personal protection equipment. Remove persons to safety

Environmental precautions

Limit leakages with earth or sand. Do not discharge into the subsoil/soil.

Methods and materials for containment and cleaning up

Take up with absorbing materials (e.g sand, universal binder). Dispose as hazardous waste.

7 HANDLING AND STORAGE

Handling

Ensure adequate ventilation at the workplace. Avoid open flames and sources of ignition.

Storage

Keep away from food and drink. Store in a cool dry area and keep container tightly sealed. Incompatible materials.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Use with adequate local exhaust ventilation.

Hygiene Measures: Remove contaminated clothing immediately after work. Launder clothing that is soiled with this material before reuse, or else discard. Inform individuals responsible for the cleaning of potential hazards associated with the handling of these contaminated clothing. No smoking, eating, or drinking at the workplace. Wash hands thoroughly after handling this material. Keep workplace clean.

Respiratory Protection: General room ventilation is required.

Hand Protection: Chemical resistance gloves/ PVC gloves.

Eye/Face Protection: Safety goggles with side shields.

Skin Protection: Light protective clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Odour:	Typical
Colour:	White Emulsion
Chemical Type:	Liquid
Flammability:	N/A
Boiling Point:	N/A
Melting Point:	N/A

SDS – Weberfloor PUC MFAS

Page 2 of 4

Trade name Weberfloor PUC MFAS (Part A)

Explosion Hazard:	N/A
Vapour Pressure (25°C):	N/A
Solubility:	N/A
Relative Density:	1,047 g/cm ³ @ 20°C

10 STABILITY AND REACTIVITY

Chemical stability: Stable under normal temperature and pressure.

Polymerization: Will not polymerize.

Thermal decomposition products: Oxides of carbon.

11 TOXICOLOGICAL INFORMATION

Toxicity Data:

- LD50: >20ml/kg Skin – rabbit, 7499mg/kg Oral – rat.
- LC50: 4250mg/m³ Inhalation – rat.

Local effects: No data available

Acute toxicity level: No data available

Mutagenic data: No data available

Reproductive effects data: No data available

12 ECOLOGICAL INFORMATION

Ecotoxicity data:

Fish toxicity:	700 µg/l 96hours LC50 (Mortality) – Bluegill
Invertebrate toxicity:	5400 µg/l 7hours EC50 (Regeneration) – Flatworm
Algal toxicity:	3.4 µg/l /096year EC50 (Growth) – Dinoflagellate
Other toxic:	340 µg/l 2weeks (Population) – Aquatic community

Fate and transport:

Bio concentration: 3500 µg/l 24day BCF (Residue) – Midge 0.18 µg/l

13 DISPOSAL CONSIDERATIONS

Product: In accordance with local regulations, take to special waste incineration plant.

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must inform about possible hazards.

14 TRANSPORT INFORMATION

UN NUMBER:	-
(Rail/Road) ADR/RID Shipping Data	
Proper Shipping Name:	Not regulated for transport
Hazard Class:	-
Packing Group:	-
(Sea) IMO Shipping Data	
Proper Shipping Name:	Not regulated for transport
Hazard Class:	-
Packing Group:	-
(Air) ICAO/IATA Shipping Data	
Proper Shipping Name:	Not regulated for transport
Hazard Class:	-
Packing Group:	-

Trade name Weberfloor PUC MFAS (Part A)

15 REGULATORY INFORMATION

Inventory Information

Australia: All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on AIIC.

New Zealand: This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

European Economic Area (including EU): This product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

United States (USA): All components of this product are designated as "Active" on the TSCA Inventory or are not required to be listed.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

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Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

Malaysia: Safety Data Sheet complies with the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 & Industry Code of Practice on Chemicals Classification and Hazard Communication 2014 by Department of Occupational Safety and Health, Malaysia.

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Trade name Weberfloor PUC MFAS (Part B)

1 IDENTIFICATION OF HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product identifier

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Substance: Polyurethane Self-Smoothing Screed

CAS No: Substance

Details of the supplier of the safety data sheet

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2 HAZARDS IDENTIFICATION

Classification

Acute toxicity, Inhalative, Category 4 (H332), Skin irritation, Category 2 (H315), Eye irritation, Category 2 (H319), Sensitization of the respiratory airways, Category 1 (H334), Sensitization of the skin, Category 1 (H317), Carcinogenicity, Category 2 (H351), Specific target organ toxicity (single exposure), Category 3 (H335) Specific target organ toxicity (repeated exposure), Category 2 (H373).

Hazard Pictograms



Signal Word

Danger

Hazard Statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause allergic skin reaction
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ eye protection/ face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Trade name Weberfloor PUC MFAS (Part B)

3 COMPOSITION AND INFORMATION OF THE INGREDIENTS

Chemical Name	CAS Number	%
Diphenylmethane-diisocyanate, isomers and homologues Acute Tox. 4 Inhalative H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334 Skin Sens. 1 H317 Carc. 2 H351 STOT SE 3 H335 STOT RE 2 Inhalative H373 <i>Specific threshold concentration:</i> <i>Eye Irrit. 2 H319 >= 5 %</i> <i>Skin Irrit. 2 H315 >= 5 % Resp. Sens. 1 H334 >= 0,1 %</i> <i>STOT SE 3 H335 >= 5 %</i>	9016-87-9	≤ 98%

4 FIRST AID MEASURES

Description of first aid measures

General advice:

Soiled, soaked clothing and shoes must be immediately removed, decontaminated and disposed of.

After inhalation:

Move affected person to fresh air, keep warm and let person rest. If there is difficulty breathing, seek medical advice.

After skin contact:

In the event of contact with the skin, wash with cleaner based on polyethylene glycol or with plenty of warm water and soap. Consult a doctor in the event of skin reaction.

After eye contact:

Hold the eyes open and rinse with preferably lukewarm water for a sufficient period of time (at least 10 mins). Contact an ophthalmologist if needed.

After swallowing:

Do not induce vomiting. Seek medical examination immediately.

Most important symptoms and effects, both acute and delayed

Note to physician: The product irritates the respiratory tract and may trigger sensitisation of the skin and respiratory tract. Treatment of acute irritation or bronchial constriction is primarily symptomatic. Extended medical treatment may be required depending on the degree of exposure and the severity of the symptoms.

Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information is available.

5 FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), Foam, extinguishing powder, in cases of larger fires, water spray should be used.

Unsuitable extinguishing media: High volume water jet

Special hazards arising from the substance or mixture

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen, isocyanate vapours and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes. Fire in the vicinity poses a risk of pressure build-up and rupture. Containers at risk of fire should be cooled with water and, if possible, removed from the danger area.

Advice for fire-fighters

During firefighting, a respirator with independent air supply and an airtight garment are required. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

Trade name Weberfloor PUC MFAS (Part B)

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Put on protective equipment (see section 8). Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

Environmental precautions

Do not allow it to escape into waterways, wastewater or soil.

Methods and materials for containment and cleaning up

Remove mechanically; cover the remainder with wet, absorbent material (e.g., sawdust, chemical binder based on calcium silicate hydrate, sand). After approximately one hour, transfer to a waste container and do not seal (evolution of CO₂). Keep damp in a safe ventilated area for several days. Spill areas can be decontaminated with the following recommended decontamination solution: Decontamination solution 1: 8-10% sodium carbonate and 2% of liquid soap in water Decontamination solution 2: Liquid/yellow soap (potassium soap with ~15% anionic tenside): 20ml; Water: 700ml; Polyethylglycol (PEG 400): 350ml

Reference to other sections: For further disposal measures, see section 13.

7 HANDLING AND STORAGE

Precautions for safe handling

Provide sufficient air exchange and/or exhaust in work rooms.

In all workplaces or parts of the plant where high concentrations of isocyanate aerosols and/or vapours may be generated (e.g., during pressure release, mould venting or when cleaning mixing heads with an air blast), appropriately located exhaust ventilation must be provided to prevent occupational exposure limits from being exceeded. Air should be drawn away from the personnel handling the product. The efficiency of exhaust equipment should be periodically checked. The threshold limit values noted in section 8 must be monitored.

The personal protective measures described in section 8 must be observed. Contact with skin and eyes and inhalation of vapours must be avoided under all circumstances. Keep away from food, drinks, and tobacco. Wash hands before breaks and at the end of work and use skin-protecting ointment. Keep working clothes separately. Take off all contaminated clothing immediately. Decontaminate, destroy, and dispose of soiled protective clothing (see Section 13).

Conditions for safe storage, including any incompatibilities

Keep container tightly closed and dry. Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet.

Specific end use(s)

No information available.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Use with adequate general and local exhaust ventilation.

Hygiene Measure: Do not eat, drink, smoke or take drugs in the workplace. Wash hands before break or after work.

Respiratory Protection: General room ventilation is adequate.

Protection of hands: Chemical resistance gloves/PVC gloves.

Eye protection: Safety goggles with side shields.

Skin protection: Light protective clothing.

Trade name Weberfloor PUC MFAS (Part B)

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Brown
Odour:	Earthy, musty
Odour Threshold:	Not established
pH:	Not applicable
Pour Point:	< 0°C (ISO 3016)
Boiling Point:	> 300°C at 1.013hPa (DIN 53171)
Flash Point:	> 200°C
Evaporation Rate:	Not established
Flammability (solid, gas):	Not applicable
Burning Number:	Not applicable
Vapour Pressure:	Diphenyl-methane-diisocyanate, (MDI) < 0,00001 hPa at 20 °C < 0,0005 hPa (50°C) For products with a very low vapour pressure, the apparent vapour pressure may exceed the vapour pressure of the pure product due to conditions of manufacturing, storage or transportation, e.g., by solved gases like nitrogen or carbon dioxide. 1 hPa at 20 °C EG A4 12 hPa at 50 °C EG A4 17 hPa at 55 °C EG A4
Vapour Density:	Not established
Density:	1,238 g/cm ³ at 20 °C (DIN 51757)
Miscibility with Water:	Immiscible at 15 °C
Surface Tension:	Not established
Partition Coefficient (n-octanol/water):	Not established
Auto-ignition Temperature:	Not applicable
Ignition Temperature:	> 500 °C (DIN 51794)
Decomposition Temperature:	Not established
Viscosity, dynamic:	>= 200 mPa.s at 20 °C (DIN 53019)
Explosive Properties:	Not established
Dust Explosion Class:	Not applicable
Oxidising Properties:	Not established

10 STABILITY AND REACTIVITY

Reactivity: This information is not available.

Chemical Stability: Polymerises at about 200 °C with evolution of CO₂.

Possibility of Hazardous Reactions: Exothermic reaction with amines and alcohols; reacts with water forming CO₂; in closed containers, risk of bursting owing to increase of pressure.

Conditions to Avoid: This information is not available.

Incompatible Materials: This information is not available.

Hazardous Decomposition Products: No hazardous decomposition products when stored and handled correctly.

11 TOXICOLOGICAL INFORMATION

Please find below the data available to us:

Information on toxicological effects

Acute toxicity, oral

diphenylmethane-diisocyanate, isomers and homologues

LD50 rat, male/female: > 10,000 mg/kg

Method: OECD Test Guideline 401

Acute toxicity, dermal

diphenylmethane-diisocyanate, isomers and homologues

LD50 rabbit, male/female: > 9,400 mg/kg

Method: OECD Test Guideline 402

Acute toxicity, inhalation

diphenylmethane-diisocyanate, isomers and homologues

LC50 rat, male/female: 0.31 mg/l, 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore, the test result cannot be directly applied for the purpose of assessing hazard. Based on expert judgment and the weight of the evidence, a modified classification for acute inhalation toxicity is justified.

Assessment: Harmful by inhalation.

Converted acute toxicity point estimate 1.5 mg/l

Test atmosphere: dust/mist

Method: Expert judgement

Primary skin irritation

diphenylmethane-diisocyanate, isomers and homologues

Species: rabbit

Result: slight irritant

Method: OECD Test Guideline 404

Primary mucosae irritation

diphenylmethane-diisocyanate, isomers and homologues

Species: rabbit

Result: non-irritant

Method: OECD Test Guideline 405

Toxicological studies of a comparable product.

Sensitisation

diphenylmethane-diisocyanate, isomers and homologues

Skin sensitisation according to Magnusson/Kligmann (maximizing test):

Species: Guinea pig

Result: negative

Classification: Does not cause skin sensitization.

Method: OECD Test Guideline 406

Skin sensitization (local lymph node assay (LLNA)):

Species: Mouse

Result: positive

Classification: May cause sensitization by skin contact.

Method: OECD Test Guideline 429

Toxicological studies of a comparable product.

Trade name Weberfloor PUC MFAS (Part B)

Respiratory sensitization

Species: rat

Result: positive

Classification: May cause sensitization by inhalation.

Subacute, subchronic and prolonged toxicity

diphenylmethane-diisocyanate, isomers and homologues

NOAEL: 0,2 mg/m³

LOAEL (Lowest observable adverse effect level): 1 mg/m³

application Route: Inhalative

Species: rat, male/female

Dose Levels: 0 - 0,2 - 1 - 6 mg/m³

Exposure duration: 2 a

Frequency of treatment: 6 hours a day, 5 days a week

Target Organs: Lungs, Nasal inner lining

Test substance: as aerosol

Method: OECD Test Guideline 453

Findings: Irritation to nasal cavity and to lungs.

Studies of a comparable product.

Carcinogenicity

diphenylmethane-diisocyanate, isomers and homologues

Species: rat, male/female

Application Route: Inhalative

Dose Levels: 0 - 0,2 - 1 - 6 mg/m³

Test substance: as aerosol

Exposure duration: 2 a

Frequency of treatment: 6 hours/day, 5 days/week

Method: OECD Test Guideline 453

Occurrence of tumors in the highest dose group.

Reproductive toxicity/Fertility

diphenylmethane-diisocyanate, isomers and homologues

No data available.

Reproductive toxicity/Teratogenicity

diphenylmethane-diisocyanate, isomers and homologues

NOAEL (teratogenicity): 12 mg/m³

NOAEL (maternal): 4 mg/m³

NOAEL (developmental toxicity): 4 mg/m³

Species: rat, female

Application Route: Inhalative

Dose Levels: 0 - 1 - 4 - 12 mg/m³

Frequency of treatment: 6 hours/day (Exposure duration: 10 days (day 6 - 15 p.c.))

Test period: 20 d

Test substance: as aerosol

Method: OECD Test Guideline 414

NOAEL (developmental toxicity): 4 mg/m³

Did not show teratogenic effects in animal experiments.

Genotoxicity in vitro

diphenylmethane-diisocyanate, isomers and homologues

Test type: Salmonella/microsome test (Ames test)

Test system: Salmonella typhimurium

Metabolic activation: with/without

Result: negative

SDS – Weberfloor PUC MFAS

Page 6 of 11

Trade name Weberfloor PUC MFAS (Part B)

Method: OECD Test Guideline 471

Genotoxicity in vivo

diphenylmethane-diisocyanate, isomers and homologues

Test type: Micronucleus test

Species: rat, male

Application Route: Inhalative (exposure period: 3x1h/day over 3 weeks)

Result: negative

Method: OECD Test Guideline 474

Studies of a comparable product.

STOT evaluation – one-time exposure

diphenylmethane-diisocyanate, isomers and homologues

Route of exposure: Inhalative

Target Organs: Respiratory Tract May cause respiratory irritation.

STOT evaluation – repeated exposure

diphenylmethane-diisocyanate, isomers and homologues

Route of exposure: Inhalative

Target Organs: Respiratory Tract

May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

diphenylmethane-diisocyanate, isomers and homologues

Based on available data, the classification criteria are not met.

CMR Assessment

diphenylmethane-diisocyanate, isomers and homologues

Carcinogenicity: Suspected of causing cancer by inhalation (Carc. 2).

Mutagenicity: In vitro and in vivo test did not show mutagenic effects. Based on available data, the classification criteria are not met.

Teratogenicity: Did not show teratogenic effects in animal experiments. Based on available data, the classification criteria are not met.

Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

Toxicology Assessment

diphenylmethane-diisocyanate, isomers and homologues

Acute effects: Harmful if inhaled. The product causes irritation of eyes, skin and mucous membranes.

Sensitization: May cause sensitization by inhalation and skin contact.

Additional information

diphenylmethane-diisocyanate, isomers and homologues

Special properties/effects: Over-exposure entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations, including concentrations below the UK Workplace Exposure Limit (WEL).

Prolonged contact with the skin may cause tanning and irritant effects.

12 ECOLOGICAL INFORMATION

Do not allow it to escape into waterways, wastewater or soil.

Toxicity Acute Fish toxicity
diphenylmethane-diisocyanate, isomers and homologues
LC50 > 1,000 mg/l
Test type: Acute Fish toxicity
Species: Danio rerio (zebra fish)
Exposure duration: 96 h
Method: OECD Test Guideline 203

Acute toxicity for daphnia
diphenylmethane-diisocyanate, isomers and homologues
EC50 > 1,000 mg/l
Test type: static test
Species: Daphnia magna (Water flea)
Exposure duration: 24 h
Method: OECD Test Guideline 202
Chronic toxicity to daphnia
diphenylmethane-diisocyanate, isomers and homologues

NOEC (Reproduction) > 10 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 21 d
Method: OECD Test Guideline 202

Acute toxicity for algae
diphenylmethane-diisocyanate, isomers and homologues
ErC50 > 1,640 mg/l
Test type: Growth inhibition
Species: scenedesmus subspicatus
Exposure duration: 72 h
Method: OECD Test Guideline 201

Acute bacterial toxicity
diphenylmethane-diisocyanate, isomers and homologues
EC50 > 100 mg/l
Test type: Respiration inhibition
Species: activated sludge
Exposure duration: 3 h
Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms
diphenylmethane-diisocyanate, isomers and homologues
NOEC (mortality) > 1,000 mg/kg
Species: Eisenia fetida (earthworms)
Exposure duration: 14 d
Method: OECD Test Guideline 207

Toxicity to terrestrial plants
diphenylmethane-diisocyanate, isomers and homologues
NOEC (seedling emergence) > 1,000 mg/kg
Species: Avena sativa (oats)
Exposure duration: 14 d
Method: OECD Test Guideline 208

Trade name Weberfloor PUC MFAS (Part B)

NOEC (Growth rate) > 1,000 mg/kg
Species: Avena sativa (oats)
Exposure duration: 14 d
Method: OECD Test Guideline 208

NOEC (seedling emergence) > 1,000 mg/kg
Species: Lactuca sativa (lettuce)
Exposure duration: 14 d
Method: OECD Test Guideline 208

NOEC (Growth rate) > 1,000 mg/kg
Species: Lactuca sativa (lettuce)
Exposure duration: 14 d
Method: OECD Test Guideline 208

Ecotoxicology Assessment

diphenylmethane-diisocyanate, isomers and homologues

Acute aquatic toxicity: Based on available data, the classification criteria are not met.

Chronic aquatic toxicity: There is no evidence of a chronic aquatic toxicity.

Toxicity Data on Soil: Not expected to adsorb on soil. The substance is graded as non-critical to soil-dwelling organisms.

Impact on Sewage Treatment: Because of the low bacterial toxicity, there is no risk of an adverse effect on the performance of biological wastewater treatment plants.

Persistence and degradability

Biodegradability

diphenylmethane-diisocyanate, isomers and homologues

Test type: aerobic

Inoculum: activated sludge

Biodegradation: 0 %, 28 d, i.e. not inherently degradable

Method: OECD Test Guideline 302 C

According to the results of tests of biodegradability this product is not readily biodegradable.

Stability in water

diphenylmethane-diisocyanate, isomers and homologues

Test type: Hydrolysis

Half life: 20 h at 25 °C

The substance hydrolyzes rapidly in water.

Studies of a comparable product.

Photodegradation

diphenylmethane-diisocyanate, isomers and homologues

Test type: Phototransformation in air

Temperature: 25 °C

sensitizer: OH-radicals

Concentration sensibilisator: 500,000 1/cm³

Half-life indirect photolysis: 0.92 d

Method: SRC - AOP (calculation)

After evaporation or exposure to the air, the product will be moderately degraded by photochemical processes. Studies of a comparable product.

Bioaccumulative potential

Bioaccumulation

diphenylmethane-diisocyanate, isomers and homologues

Bioconcentration factor (BCF): < 14

Species: Cyprinus carpio (Carp)

Trade name Weberfloor PUC MFAS (Part B)

Exposure duration: 42 d
Concentration: 0.2 mg/l
Method: OECD Test Guideline 305 C
An accumulation in aquatic organisms is not to be expected. The substance hydrolyses rapidly in water. Studies of hydrolysis products.

Mobility in soil

No data available.

Endocrine disrupting properties

No data available

Results of PBT and vPvB assessment

No data available.

Other adverse effects

Isocyanate reacts with water at the interface forming CO₂ and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g., detergents) or by water-soluble solvents. Previous experience shows that polyurea is inert and non-degradable.

13 DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

Waste treatment methods: After final product withdrawal, all residues must be removed from containers (drip-free, powder-free or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. These containers can be returned for recycling to the appropriate centres set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

14 TRANSPORT INFORMATION

UN NUMBER:	Not dangerous for transport
(Rail/Road)ADR/RID Shipping Data:	Not regulated (Not dangerous for transport)
(Sea)IMO Shipping Data:	Not regulated (Not dangerous for transport)
(Air)ICAO/IATA Shipping Data:	Not regulated (Not dangerous for transport)
Packing Group:	Not dangerous for transport

15 REGULATORY INFORMATION

Inventory Information

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Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

Malaysia: Safety Data Sheet complies with the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 & Industry Code of Practice on Chemicals Classification and Hazard Communication 2014 by Department of Occupational Safety and Health, Malaysia.

16 OTHER INFORMATION

Full text of hazardous (H) warnings referred to under sections 2, 3 and 10 of the CLP classification (1272/2008/CE).

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

For internal US delivery: Under § 172.101, Appendix A, DOT (Department of Transportation) it is requested: MDI Reportable Quantity (RQ):5000lbs (2270kg).

ISOPA Guidelines for safe loading/unloading, transport and storage of TDI and MDI. ISOPA Order No.: PSC-0005- GUIDL

Safety precautions for handling freshly molded polyurethane parts:

Depending on the production parameters, any uncovered surfaces of freshly molded polyurethane parts using this raw material may contain traces of substances (e. g. starting and reaction products, catalysts, release agents) with hazardous characteristics. Skin contact with traces of these substances must be avoided. Therefore, during demolding or other handling of fresh molded parts, protective gloves tested according to DIN-EN 374 (e.g. nitrile rubber ≥ 1.3 mm thick, breakthrough time ≥ 480 min, or according to recommendations from glove makers thinner gloves that need to be changed in compliance with breakthrough times more frequently) must be used. Depending on formulation and processing conditions, the requirements may be different from handling of the pure substances. Closed protective clothing is required for the protection of other areas of skin.

Further information 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.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Trade name Weberfloor PUC MFAS (Part C)

1 IDENTIFICATION OF HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product identifier

Trade name: Weberfloor PUC MFAS (Part C)

Substance: Polyurethane Screed ESD Floor Coating

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Saint-Gobain (Singapore) Pte Ltd

2 Venture Drive, #13-18 Vision Exchange, Singapore 608526

Phone: +65 6330 8288

Fax: +65 6330 8288

Saint-Gobain Weber (M) Sdn Bhd

No 29 & 31, Jalan TIAJ 2/1, Taman Industri Alam Jaya,

42300 Bandar Puncak Alam, Selangor D E, Malaysia

Phone: +603 6038 9498/97/89

Fax: +603 6038 9507

2 HAZARDS IDENTIFICATION

Classification

Skin Irrit. 2: May causes skin irritation.

Skin Sens. 1: May cause sensitization by skin contact.

Eye Irrit. 2: Causes serious eye irritation.

Hazard Pictograms



Signal Word

Warning

Hazard Statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H317 May cause allergic skin reaction

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P313+P333 If skin irritation or rash occurs: Get medical advice attention.

P313+P337 If eye irritation persists: Get medical advice attention.

P273 Avoid release to the environment.

3 COMPOSITION AND INFORMATION OF THE INGREDIENTS

Chemical Name	CAS Number	%
Silica Sand	14808-60-7	80%
Calcium Carbonate	1317-65-3	15%
White Cement	65997-15-1	35%

Trade name Weberfloor PUC MFAS (Part C)

4 FIRST AID MEASURES

Description of first aid measures

After inhalation:

Move affected person to fresh air. If breathing has stopped, institute artificial respiration. Seek medical advice if symptoms persist.

After skin contact:

Wash the contacted area thoroughly with soap and water. Remove contaminated clothing. If symptoms persist, seek medical advice. Rinse eyes thoroughly with water for at least 15 mins.

After eye contact:

Rinse eyes immediately with plenty of clean water for at least 15 minutes and seek medical advice.

After swallowing:

Do not induce vomiting. Dilute with water. Seek medical examination immediately.

5 FIRE-FIGHTING MEASURES

Extinguishing media

In case of fire, use water spray (fog) foam, dry chemical or CO₂.

Fire Fighting Instruction

Fire fighters should wear self-contained breathing apparatus and full protective gear.

Self Ignition

Not self igniting.

Flash Point

> 120 °C.

6 ACCIDENTAL RELEASE MEASURES

Personal Precaution

Use personal protective equipment.

Environmental Precaution

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil.

Methods for Cleaning Up

Take up with absorbing materials (e.g. sand, universal binder). Dispose as hazardous waste.

7 HANDLING AND STORAGE

Handling

Ensure adequate ventilation at the workplace. Avoid open flames and sources of ignition.

Storage

Keep away from food and drink. Store in a cool dry area and keep container tightly sealed.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Use with adequate general and local exhaust ventilation.

Hygiene Measure: Do not eat, drink, smoke or take drugs in the workplace. Wash hands before break or after work.

Respiratory Protection: General room ventilation is adequate.

Protection of hands: Chemical resistance gloves/PVC gloves.

Eye protection: Safety goggles with side shields.

Skin protection: Light protective clothing.

Trade name Weberfloor PUC MFAS (Part C)

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Odour:	Characteristic mild
Chemical Type:	Mixture sand
Flammability:	Does not ignite
Boiling Point:	No data available
Melting Point:	No data available
Explosion Hazard:	Not explosive
Vapour Pressure (25°C):	Not applicable
Solubility (250°C):	Insoluble in water
Relative Density:	1.2 – 1.5

10 STABILITY AND REACTIVITY

Stability: Stable. Avoid static electricity discharge.

Hazardous Polymerization: Will not occur. Avoid strong acid, strong base and amines.

Hazardous Reactions: In fire, toxic fumes may be generated.

11 TOXICOLOGICAL INFORMATION

Proper use provided, no adverse health effects have been observed or have been come to our knowledge. Eye contact may produce an oil film over the eyeball causing a harmless reversible short lasting dimness of sight.

12 ECOLOGICAL INFORMATION

Bioaccumulation: Not available

Fish Toxicity: Not available

13 DISPOSAL CONSIDERATIONS

Product: In accordance with local authority regulations, take to special waste incineration plant.

Contaminated packaging: If empty contaminated containers are recycled or disposed of, the receiver must inform about possible hazards.

14 TRANSPORT INFORMATION

ARD/RID Shipping Data: Not regulated (Not dangerous for transport)

IMO Shipping Data: Keep from freezing (Not dangerous for transport)

ICAO/IATA Shipping Data: Keep from freezing (Not dangerous for transport)

15 REGULATORY INFORMATION

Hazard Labels:	Irritant
R43:	May cause sensation by skin contact
R36/38:	Irritating to eyes and skin
S24:	Avoid contact with skin
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28:	In case of contact with skin, wash immediately with plenty of water and soap

Trade name Weberfloor PUC MFAS (Part C)

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Trade name Weberfloor PUC MF (Part D)

1 IDENTIFICATION OF HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product identifier

Trade name: Weberfloor PUC MF (Part D) Colour Paste

CAS No.: Substance

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Saint-Gobain (Singapore) Pte Ltd
2 Venture Drive, #13-18 Vision Exchange, Singapore 608526
Phone: +65 6330 8288
Fax: +65 6330 8288

Saint-Gobain Weber (M) Sdn Bhd
No 29 & 31, Jalan TIAJ 2/1, Taman Industri Alam Jaya,
42300 Bandar Puncak Alam, Selangor D E, Malaysia
Phone: +603 6038 9498/97/89
Fax: +603 6038 9507

2 HAZARDS IDENTIFICATION

Classification

Skin Irrit. 2: May causes skin irritation.
Skin Sens. 1: May cause sensitization by skin contact.

Hazard Pictograms



Signal Word

Warning

Hazard Statements

H316 Causes mild skin irritation
H317 May cause allergic skin reaction

Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/eye protection/face protection.
P333+P317 If skin irritation or rash occurs: Get medical help.

3 COMPOSITION AND INFORMATION OF THE INGREDIENTS

Chemical Name	CAS Number	%
Water	7732-18-5	≤ 25 %
Colour Pigment	68609-97-2	≥ 70 %

Trade name Weberfloor PUC MF (Part D)

4 FIRST AID MEASURES

Description of first aid measures

After inhalation:

Move affected person to fresh air. If breathing has stopped, institute artificial respiration. Seek medical advice if symptoms persist.

After skin contact:

Wash the contacted area thoroughly with soap and water. Remove contaminated clothing. If symptoms persist, seek medical advice.

After eye contact:

Rinse eyes immediately with plenty of clean water for at least 15 minutes and seek medical advice.

After swallowing:

Do not induce vomiting. Dilute with water. Seek medical examination immediately.

5 FIRE-FIGHTING MEASURES

Extinguishing media

In case of fire, use water spray (fog) foam, dry chemical or CO₂.

Fire Fighting Instruction

Fire fighters should wear self-contained breathing apparatus and full protective gear.

Self Ignition

Not self igniting.

Flash Point

> 250 °C.

6 ACCIDENTAL RELEASE MEASURES

Personal Precaution

Use personal protective equipment.

Environmental Precaution

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil.

Methods for Cleaning Up

Take up with absorbing materials (e.g. sand, universal binder). Dispose as hazardous waste.

7 HANDLING AND STORAGE

Handling

Ensure adequate ventilation at the workplace. Avoid open flames and sources of ignition.

Storage

Keep away from food and drink. Store in a cool dry area and keep container tightly sealed.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Use with adequate general and local exhaust ventilation.

Hygiene Measure: Do not eat, drink, smoke or take drugs in the workplace. Wash hands before break or after work.

Respiratory Protection: General room ventilation is adequate.

Protection of hands: Chemical resistance gloves/PVC gloves.

Eye protection: Safety goggles with side shields.

Skin protection: Light protective clothing.

Trade name Weberfloor PUC MF (Part D)

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Odour:	Characteristic mild
Chemical Type:	Liquid
Flammability:	Does not ignite
Boiling Point:	No data available
Melting Point:	No data available
Explosion Hazard:	Not explosive
Vapour Pressure (25°C):	Not applicable
Solubility (250°C):	Insoluble in water
Relative Density:	1.16g/m ³

10 STABILITY AND REACTIVITY

Stability: Stable. Avoid static electricity discharge.

Hazardous Polymerization: Will not occur. Avoid strong acid, strong base and amines.

Hazardous Reactions: In fire, toxic fumes may be generated.

11 TOXICOLOGICAL INFORMATION

Proper use provided, no adverse health effects have been observed or have been come to our knowledge. Eye contact may produce an oil film over the eyeball causing a harmless reversible short lasting dimness of sight.

12 ECOLOGICAL INFORMATION

Bioaccumulation: Not available

Fish Toxicity: Not available

13 DISPOSAL CONSIDERATIONS

Product: In accordance with local authority regulations, take to special waste incineration plant.

Contaminated packaging: If empty contaminated containers are recycled or disposed of, the receiver must inform about possible hazards.

14 TRANSPORT INFORMATION

UN Number:	- (Not classified as hazardous)
(Rail/Road) ARD/RID Shipping Data:	Not regulated (Not dangerous for transport)
(Sea) IMO Shipping Data:	Keep from freezing (Not dangerous for transport)
(Air) ICAO/IATA Shipping Data:	Keep from freezing (Not dangerous for transport)
Packing Group:	-

15 REGULATORY INFORMATION

Hazard Labels:	Irritant
R43:	May cause sensation by skin contact
R36/38:	Irritating to eyes and skin
S24:	Avoid contact with skin
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28:	In case of contact with skin, wash immediately with plenty of water and soap

Trade name Weberfloor PUC MF (Part D)

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Trade name Weberfloor PUC MFAS (Part E)

1 IDENTIFICATION OF HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product identifier

Trade name: Weberfloor PUC MFAS (Part E)

Substance: Polyurethane Screed ESD Floor Coating

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Saint-Gobain (Singapore) Pte Ltd
2 Venture Drive, #13-18 Vision Exchange, Singapore 608526
Phone: +65 6330 8288
Fax: +65 6330 8288

Saint-Gobain Weber (M) Sdn Bhd
No 29 & 31, Jalan TIAJ 2/1, Taman Industri Alam Jaya,
42300 Bandar Puncak Alam, Selangor D E, Malaysia
Phone: +603 6038 9498/97/89
Fax: +603 6038 9507

2 HAZARDS IDENTIFICATION

Classification

Skin Irrit. 2: May causes skin irritation.
Skin Sens. 1: May cause sensitization by skin contact.
Eye Irrit. 2: Causes serious eye irritation.

Hazard Pictograms



Signal Word

Warning

Hazard Statements

H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause allergic skin reaction

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P313+P333 If skin irritation or rash occurs: Get medical advice attention.
P313+P337 If eye irritation persists: Get medical advice attention.
P273 Avoid release to the environment.

3 COMPOSITION AND INFORMATION OF THE INGREDIENTS

Chemical Name	CAS Number	%
Silica Sand	14808-60-7	70%
Conductive Powder	1333-86-4	30%

Trade name Weberfloor PUC MFAS (Part E)

4 FIRST AID MEASURES

Description of first aid measures

After inhalation:

Move affected person to fresh air. If breathing has stopped, institute artificial respiration. Seek medical advice if symptoms persist.

After skin contact:

Wash the contacted area thoroughly with soap and water. Remove contaminated clothing. If symptoms persist, seek medical advice. Rinse eyes thoroughly with water for at least 15 mins.

After eye contact:

Rinse eyes immediately with plenty of clean water for at least 15 minutes and seek medical advice.

After swallowing:

Do not induce vomiting. Dilute with water. Seek medical examination immediately.

5 FIRE-FIGHTING MEASURES

Extinguishing media

In case of fire, use water spray (fog) foam, dry chemical or CO₂.

Fire Fighting Instruction

Fire fighters should wear self-contained breathing apparatus and full protective gear.

Self Ignition

Not self igniting.

Flash Point

> 120 °C.

6 ACCIDENTAL RELEASE MEASURES

Personal Precaution

Use personal protective equipment.

Environmental Precaution

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil.

Methods for Cleaning Up

Take up with absorbing materials (e.g. sand, universal binder). Dispose as hazardous waste.

7 HANDLING AND STORAGE

Handling

Ensure adequate ventilation at the workplace. Avoid open flames and sources of ignition.

Storage

Keep away from food and drink. Store in a cool dry area and keep container tightly sealed.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Use with adequate general and local exhaust ventilation.

Hygiene Measure: Do not eat, drink, smoke or take drugs in the workplace. Wash hands before break or after work.

Respiratory Protection: General room ventilation is adequate.

Protection of hands: Chemical resistance gloves/PVC gloves.

Eye protection: Safety goggles with side shields.

Skin protection: Light protective clothing.

Trade name Weberfloor PUC MFAS (Part E)

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Odour:	Characteristic mild
Chemical Type:	Mixture Powder
Flammability:	Does not ignite
Boiling Point:	No data available
Melting Point:	No data available
Explosion Hazard:	Not explosive
Vapour Pressure (25°C):	Not applicable
Solubility (250°C):	Insoluble in water
Relative Density:	1.2 – 1.5

10 STABILITY AND REACTIVITY

Stability: Stable. Avoid static electricity discharge.

Hazardous Polymerization: Will not occur. Avoid strong acid, strong base and amines.

Hazardous Reactions: In fire, toxic fumes may be generated.

11 TOXICOLOGICAL INFORMATION

Proper use provided, no adverse health effects have been observed or have been come to our knowledge. Eye contact may produce an oil film over the eyeball causing a harmless reversible short lasting dimness of sight.

12 ECOLOGICAL INFORMATION

Bioaccumulation: Not available

Fish Toxicity: Not available

13 DISPOSAL CONSIDERATIONS

Product: In accordance with local authority regulations, take to special waste incineration plant.

Contaminated packaging: If empty contaminated containers are recycled or disposed of, the receiver must inform about possible hazards.

14 TRANSPORT INFORMATION

ARD/RID Shipping Data: Not regulated (Not dangerous for transport)

IMO Shipping Data: Keep from freezing (Not dangerous for transport)

ICAO/IATA Shipping Data: Keep from freezing (Not dangerous for transport)

15 REGULATORY INFORMATION

Hazard Labels: Irritant

R43: May cause sensation by skin contact

R36/38: Irritating to eyes and skin

S24: Avoid contact with skin

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28: In case of contact with skin, wash immediately with plenty of water and soap

Trade name Weberfloor PUC MFAS (Part E)

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.