



Material Safety Data Sheet

FARAZSIL® NFS 290

1. Product and company identification

Product Name:	FARAZSIL® NFS 290
Product Use:	Hydrophobic agent for Building materials
Manufacturer/Supplier:	Nano Faraz Sepahan Co. Unit No.3, Fanafarini 2 building, Isfahan Science & technology Town, Isfahan University of Technology Blvd, Isfahan, IRAN
Phone Number:	+983133932431
Emergency Phone:	+989130844702
Date of Preparation:	07/22/2021

2. Hazards identification

2.1 Hazards classifications

HMIS® rating (product as packaged):

Health: 1 Fire: 2 Reactivity: 1 PPE: G

Note: Respiratory protection is only recommended in the event that ventilation or engineering controls are unable to maintain exposures below recommended levels; or in the event of a spill or other emergency response situation. (HMIS codes are based on contact with the product as packaged and any hydrolysis by-products, if present.)

2.2 Emergency overview and potential hazards

Signal Word:

WARNING

Physical Hazards:

This material will flash but does not sustain combustion. Combustible liquid and vapor.

Acute health effects

Route of entry or possible contact:



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eyes, skin, inhalation, ingestion

Eye contact:

May cause eye irritation.

Skin contact:

May cause skin irritation.

Inhalation:

If inhaled at high concentrations lung damage is possible. Harmful (Toxic) if inhaled.

Ingestion:

Not expected in industrial use. Harmful (Toxic) if swallowed.

Additional information on acute health effects:

This material releases methanol upon hydrolysis. According to literature methanol (CAS-No. 67-56-1) irritates mucous membranes, has skin drying and narcotic effects up to coma or death.

Absorption by the skin is possible. Possibility of damage to heart, kidneys, liver and optic nerves (blindness) over a period of time.

2.3 Further information:

Chronic health effects:

Prolonged or repeated skin contact causes irritation. May cause eye irritation. See Sect. 2.2 "Acute health effects".

Medical conditions which may be aggravated by exposure:

Methanol may aggravate existing liver and/or kidney diseases.

Carcinogens/Reproductive toxins:

There are no carcinogenic ingredients present at or over 0.1% in this material. This material does not contain any reproductive toxins at or above OSHA or WHMIS reportable levels.

See Section 11 for Toxicological Information, if any.

3. Composition/information on ingredients



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3.1 Chemical characterization (preparation):

Chemical characteristics

alkylsilicone resin with alkoxy groups + filler + auxiliary

3.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	16415-12-6	hexadecyl trimethoxysilane	10.0	30.0	
INHA		organotin compound	>=1.0	<=5.0	

Type: HYD - by-product upon hydrolysis, INHA - ingredient, NEBE - by-product, MONO residual monomer, VERU- impurity, VUL- by-product upon vulcanization.

Note: C1 - IARC carcinogen, C2 - NTP carcinogen, C3 - OSHA carcinogen, NH - non-hazardous, R - reproductive toxin. Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in Section 2 are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product.

4. First-aid measures

4.1 Eye Contact: After eye contact rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

4.2 Skin Contact: In case of skin contact take off immediately all contaminated clothing. Rinse skin with water/ shower.

4.3 Inhalation: If breathed in, move person into fresh air.

4.4 Ingestion: immediately make victim drink water (two glasses at most). Consult a physician.



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5. Fire-fighting measures

5.1 Flammability: Flammable

Flash point.....: 40 °C (107 °F) (DIN 51755)

5.2 Fire and explosion hazards:

This material will flash but does not sustain combustion. As a result of hydrolysis flammable vapors may accumulate in the container head space. Consider possible formation of explosive mixtures with air, for example in uncleaned containers by moisture. Explosion limits for hydrolysis product: 5.5-44% v/v (methanol).

5.3 Recommended extinguishing media:

Water-mist, carbon dioxide, sand, dry chemical or alcohol-resistant foam Do not use: water spray, sharp water jet.

5.4 Unsuitable extinguishing media:

None known

5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Hazardous decomposition products: carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide and incompletely burnt hydrocarbons.

5.6 Firefighting procedures:

Cool endangered containers with water. Fire fighters should wear full protective clothing including a positive pressure self-contained breathing apparatus.

6. Accidental release measures

6.1 Precautions:

Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Avoid inhaling mists and vapours. If material is released indicate risk of slipping.



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HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers.

6.3 Methods for cleaning up:

Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Exhaust vapors.

6.4 Further information:

Eliminate all sources of ignition.

7. Handling and storage

7.1 Handling: Observe label precautions. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Wash hands after working with substance. Always comply with health and safety regulations.

7.2 Storage: Store in original container. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources.

Keep away from oxidizing agents, strong alkaline and acids.

No smoking. Containers which have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature: 5- 35°C



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8. Exposure controls/personal protection

8.1 Personal Protective Equipment:

Eye/Face Protection: Wear approved eye protection (splash-proof chemical safety goggles) and face protection (face shield). Do NOT wear contact lenses when using this product.

Hand Protection: Wear suitable gloves - nitrile, rubber.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.

8.2 General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

9. Physical and chemical properties

9.1 Appearance

Physical state / form	clear liquid
Colour	colourless
Odour	slight

9.2 Safety parameters Method

Flash point	40 °C (107 °F) (DIN 51755)
Sustained combustibility	> 110 °C (> 230 °F) (ISO 9038)
Ignition temperature	> 280 °C (> 536 °F) (DIN 51794)
Density	0.82 g/cm ³ at 25 °C (77 °F) (DIN 51757)
Water solubility / miscibility	not applicable
pH-Value	not applicable

10. Stability and reactivity



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10.0 General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

10.1 Conditions to avoid:

moisture

10.2 Materials to avoid:

Reacts with: water , basic substances and acids . Reaction causes the formation of: methanol.

10.3 Hazardous decomposition products:

Under the effect of humidity, water and protic agents: methanol. The following applies for the silicone content of the substance: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

10.4 Further information:

Hazardous polymerization cannot occur.

11. Toxicological information

11.1 Acute oral toxicity: Symptoms: Nausea, Vomiting

11.2 Acute inhalation toxicity: Symptoms: Possible damages: mucosal

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

11.3 Eye irritation: Causes serious eye irritation.

12. Ecological information

12.1 Information on elimination (persistence and degradability)

Biodegradation / further information:



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The product of hydrolysis (methanol) is readily biodegradable. Silicone content: Biologically not degradable.

Further information:

By hydrolysis: Methanol and silanol- and/or siloxanol-compounds . Silicone content: Elimination by adsorption to activated sludge.

12.2 Behaviour in environmental compartments

Mobility

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Further information:

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12.3 Ecotoxicological effects:

According to past experience toxicity to fish is improbable.

12.4 Additional information

Other harmful effects

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General information:

According to our present knowledge no further data known.

13. Disposal considerations

13.1 Disposal Instructions: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

14. Transport information

TDG Classification:

UN3295, LIQUID, N.O.S., 3, II

15. Regulatory information



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EU regulations Major Accident Hazard Legislation	SEVESO III FLAMMABLE LIQUIDS P5c Quantity 1: 5.000 t Quantity 2: 50.000 t
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	not regulated
Substances of very high concern (SVHC)	This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of ≥ 0.1 % (w/w).

Labeling

Hazard pictograms





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16. Other information

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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