

DSI Silane

Coupling agent for Ceramics

Material safety data sheet (MSDS)
Version 1.0 / EN

10/08/2022

SECTION 1: PRODUCT AND COMPANY INFORMATION

1.1. Product identifier

Product Name	DSI Silane
Intended use	Coupling agent for Ceramics
Structure	Clear, colorless liquid

1.2. Details of the supplier of the safety data sheet:

Company Name	DSI Ltd.
Company Address	59 haAvoda str., Ashdod 7706300 Israel
Contact Name	Shlomi Krasner
Phone / Fax	+972.893.172.35
E-mail	info@dsisrael.com

Emergency telephone number:

Phone / Fax	+972.893.172.35
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SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

2.1. Chemical characterization:

COMPONENTS	C.A.S.	% by Wt
Additional monomer group*	-	10-15
Ethyl alcohol	64-17-5	40-45
Acetone	67-64-1	45-50

* indicates the ingredient name and/or exact percentage is being withheld as a trade secret.

SECTION 3: HAZARDS IDENTIFICATION

- Classification of the substance or mixture

Hazard statements

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove person to fresh air and keep 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.
P312 Call a POISON CENTER/doctor if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: CO₂ , powder or water spray.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. Get medical attention immediately.

After skin contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Take off immediately all contaminated clothing. Rinse skin with water [or shower].

After eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

After swallowing: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: MEASURES AND MEANS OF MAINTENANCE OF FIRE SAFETY

Extinguishing media

Suitable extinguishing agents: Carbon dioxide or dry powder. Water in large amounts. Alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.

Special hazards arising from the substance or mixture: Heat may cause the containers to explode. Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

Advice for firefighters:

Protective equipment: Use water spray to keep fire-exposed containers cool. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces.

Additional information: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

Environmental precautions:

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up:

All equipment used when handling the product must be grounded. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. In case of leakage, eliminate all ignition sources. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Handling:

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid breathing mists or vapors. Use only with adequate ventilation. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture. Keep ignition sources away - Do not smoke. Protect

against electrostatic charges.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Provide ventilation for receptacles. Store in a cool location.

Information about storage in one common storage facility: Store away from oxidizing agents.

Further information about storage conditions:

Store receptacle in a well ventilated area. Store in a cool place.

Protect from contamination. Protect from heat

See product labeling.

Keep container tightly sealed.

Store in cool, dry conditions in well - sealed receptacles.

Specific end use(s) Professional Coupling Agent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

- Good general ventilation should be used.
- Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level.
- Use personal protective equipment as required. Practice good housekeeping.
- Use explosion-proof ventilation equipment.
- Discard contaminated footwear that cannot be cleaned.
- Routinely wash work clothing and protective equipment to remove contaminants.
- Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.
- When using do not smoke.
- Special rooms for washing, showering and changing are required. Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- Respiratory protection:
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands: Protective gloves

SECTION 9: PHYSICAL/CHEMICAL CHARACTERISTICS

9.1. Information on basic physical and chemical properties:

Appearance:	
Form:	Liquid
Color:	colorless
Odor:	Not determined.
Flammability (solid, gas):	Not applicable.
Auto-ignition temperature:	Product is not self igniting.
Explosive properties:	Product is not explosive.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Solubility in /	
Miscibility with water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Conditions to avoid:

Sparks Flames

Ignition sources Heat

Incompatible materials:

Aldehydes Alkalis Amines Isocyanates

Strong oxidizing agents

Hazardous decomposition products:

Carbon monoxide and carbon dioxide-strong oxidizing agents

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

LD/LC50 values relevant for classification:

Ethyl Alcohol

Oral	LD50	7060 mg/kg
Dermal	LDLO	20000 mg/kg (rabbit)
Inhalative	LC50	66000 mg/l (rat)

SECTION 12: ECOLOGICAL INFORMATION

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATION

Waste treatment methods

Recommendation Do not allow product to reach sewage system.

HP4 Irritant - skin irritation and eye damage

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations

SECTION 14: TRANSPORT INFORMATION

Regulated for Shipping: No. Not Regulated	DOT Shipping Name: Not Regulated	Packing Group: Not Applicable
Do Changes in Quantities, packaging, or shipment method change product classification? No	DOT Hazard Class: Not Applicable	UN Number: Not Applicable

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
Chemical safety assessment:
Device is biocompatible when used as directed by dental professionals per ISO 10993-1.

SECTION 16: OTHER INFORMATION

Relevant phrases

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Disclaimer:

Since the working conditions of the final user are unknown, the information presented in this safety data sheet is based on the current level of our knowledge, based on national and general standards.
The product should not be used for any other purpose than those indicated under heading without first receiving written instructions for use. The user must take all necessary measures to comply with the requirements and rules of the law. The information in this safety data sheet should be considered as a description of the safety requirements that apply to our product and does not guarantee its properties.