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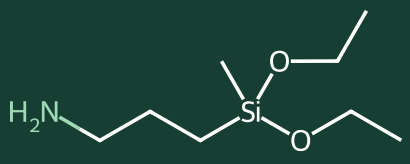
Technical data sheet
TDS-LEGRA-1030-L-EN
Revision 1.0, November 2026

LANDUSIL LEGRA

1030-L

3-Aminopropylmethyldiethoxysilane

Primary amino diethoxy silane for resin–mineral interfaces and silicone modification



Chemical identity

Chemical name
3-Aminopropylmethyldiethoxysilane

CAS number
3179-76-8

EC number
221-660-8

Structure
$H_2N(CH_2)_3Si(CH_3)(OC_2H_5)_2$

Molecular formula
$C_8H_{21}NO_2Si$

Molecular weight
191.34 g/mol

Hydrolysis by-product
Ethanol

Product description

LANDUSIL LEGRA 1030-L is 3-aminopropylmethyldiethoxysilane. It carries a primary amino group and a silicon atom bearing one methyl group and two hydrolyzable ethoxy groups.

The ethoxy groups hydrolyze to silanols and release ethanol. Condensation can connect silane species with suitable inorganic surfaces or other siloxane components. The amine supplies a separate site for reactions with compatible resins. The two hydrolyzable groups distinguish this material from trialkoxy amino silanes; final network structure and interface properties depend on the full formulation and process.

Features and benefits

- One primary amine for reactions with compatible organic resins
- Two ethoxy groups and one methyl group on silicon
- Hydrolysis releases ethanol
- Building block for controlled amino-functional silicone synthesis
- Use in primers, mineral treatments and selected resin binders

Specification

Property	Unit	Value	Test method
Appearance		**Colorless to light yellow, clear liquid**	Visual
Purity (GC)	%	**min. 97.0**	Gas chromatography
Color	Pt-Co	**max. 30**	Platinum-cobalt color comparison
Density, 20 °C	g/cm³	**0.900 – 0.920**	Density measurement, 20 °C
Refractive index, n_D^{25}	–	**1.4220 – 1.4320**	Refractometry, 25 °C

Tested on every batch and reported on the Certificate of Analysis.

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Typical properties

Boiling point, 8 mmHg	85 – 88 °C
Kinematic viscosity, 25 °C	1.50 – 1.90 mm²/s
Behavior in water	Hydrolyzes and releases ethanol

For guidance only; not part of the specification.

Applications

Foundry binders
Coupling additive in selected cold-curing phenolic and furan sand binders; assess catalyst demand, working time and conditioned strength.

Amino-functional silicones
Building block for controlled hydrolysis and co-condensation; characterize composition, residual ethoxy groups and viscosity.

Fillers and pigments
Treatment of suitable silica, silicate fillers and metal oxides before compounding or during controlled mixing.

Resin-bonded abrasives
Treatment for selected mineral–phenolic interfaces; qualify mixing, forming and the actual binder cure schedule.

Primers and reactive adhesives
Separate primers for prepared glass or metal and additives for compatible epoxy or polyurethane systems.

Glass and mineral fibers
Coupling component for compatible sizing, fabric finishes or mineral-fiber binders, each assessed in its own process.

Guidelines for use

Aqueous surface treatment	Screen aqueous hydrolysates below 5 % silane by weight. Establish water addition, usable bath time, surface application and drying under the actual production conditions.
Binder addition	Add to a compatible resin component during mixing. Account for primary-amine reactivity in epoxy and polyurethane systems; verify working time, cure and storage viscosity.
Silicone modification	Define the other silane or siloxane components, reaction stoichiometry and endpoint before hydrolysis or co-condensation. Check residual volatiles and available amino functionality.

These levels are starting points. Determine the optimum level and method in trials under your own production conditions.

Handling and safety

- Corrosive: causes severe skin burns and eye damage. Wear suitable gloves, protective clothing and eye/face protection.
- Combustible liquid. Keep away from heat, sparks and open flames.
- Hydrolysis releases ethanol. Provide ventilation, avoid breathing vapor or mist and control moisture exposure.
- Check compatibility with acids, ketone or ester solvents and the selected resin or silicone catalyst before mixing.
- Read the Safety Data Sheet before use.

Storage and shelf life

Store in original, tightly closed containers in a cool, dry, well-ventilated place away from fire, heat and moisture. Shelf life is 12 months in unopened containers under these conditions. Reseal promptly and protect opened material from atmospheric moisture.

Packaging

25 kg plastic drum, 200 kg steel drum, 1,000 kg IBC. Other pack sizes on request.

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