

Diisopropylamino Silane

1. Product and company identification

1.1 Product Name: Diisopropylamino Silane

1.2 Recommended use of the chemical and restrictions on use: Semiconductor Processing

1.3 Manufacturer/Supplier/Distributor Information:

- Name: Zhejiang Britech Co., LTD.

- Address: Zhejiang Britech Co., LTD.

No.1 Central Avenue, Kecheng District, Quzhou City,

Zhejiang Province, China. 324004

- Emergency phone number: +82-31-205-7939

2. Hazards identification

2.1. Hazard-Risk Classification

Flammable Liquid: Category 3

Substances and mixtures which, in contact with water, emit flammable gases: Category 2

Skin Corrosion/Irritation: Category 1

Serious eye damage/eye irritation: Category 1

2.2 Label elements including precautionary statements

- **Symbol:**



- **Signal Word:** Danger

- **Hazard-Risk Statement**

H226 Flammable liquid and vapour

H261 In contact with water releases flammable gas

H314 Causes severe skin burns and eye damage



H318 Causes serious eye damage

- Precautionary Statement

- Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P233 Keep container tightly closed.

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.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash ... thoroughly after handling.

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

P231+P232 Handle under inert gas. Protect from moisture.

- Response

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see ... on this label).

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower.

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.

P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

P370+P378 In case of fire: Use ... for extinction.

- Storage

P405 Store locked up.

P402+P404 Store in a dry place. Store in a closed container.

P403+P235 Store in a well-ventilated place. Keep cool.

- Disposal

P501 Dispose of contents/container to ...

2.3 Other Hazard-Risk which are not included in the classification criteria (e.g. dust explosion hazard):

- NFPA Rating - Health Hazard: 1, Fire: 2, Reactivity Hazard: 2



3. Composition/Information on ingredients

- 3.1 Chemical Name:** Diisopropylamino Silane
- 3.2 Other name:** DIPAS,
N,N-propyl aminosilane
N,N-Bis(1-methylethyl)silanamine
- 3.3 CAS number:** 908831-34-5
- 3.4 EN number:** -
- 3.5 Molecular Formula:** C₆H₁₇NSi
- 3.6 Content (%):** >99.5%

4. First aid measures

4.1 Eye contact

Immediately flush the eyes with copious amounts of water for at least 10-15 minutes.
A victim may need assistance in keeping their eye lids open.
Get immediate medical attention.

4.2 Skin contact

Wash off immediately with plenty of water for at least 15 minutes.
Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.

4.3 Inhalation

Remove the victim to fresh air.
Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain.
In such cases seek immediate medical assistance.

4.4 Ingestion

Never give anything by mouth to an unconscious person.
Immediately give large quantities of water to drink.
Induce vomiting if person is conscious. Prevent aspiration of vomit.
Turn victim's head to the side.

4.5 Indication of immediate medical attention and notes for physician

Seek medical advice. If breathing has stopped or is labored, give assisted respirations.
Supplemental oxygen may be indicated.
If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.



5. Fire-Fighting measures

5.1 Suitable (and unsuitable) extinguishing media

Suitable: carbon dioxide or dry powder

Unsuitable: Do not use water.

5.2 Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products):

- **Products of Combustion:** CO, CO₂, NO_x, SiO₂

5.3 Special protective equipment and precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection.

Use self-contained breathing apparatus and chemically protective clothing.

Remove all sources of ignition.

Evacuate personnel to safe areas.

6.2 Environmental precautions and protective procedures

Do not allow material to enter drains or streams.

6.3 Methods and materials for containment and cleaning up

Approach suspected leak areas with caution.

Absorb with inert absorbent materials such as: Dry sand, Vermiculite, Activated charcoal.

Place in appropriate chemical waste container.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Avoid inhalation of vapor or mist.

Keep away from sources of ignition - No smoking.

Take measures to prevent the build up of electrostatic charge.

Keep away from incompatibles such as oxidizing agent, acids.

7.2 Conditions for safe storage (including any incompatibilities)

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store in cool place.



Do not store together with oxidizing and acidic materials.

Protect from humidity and water.

Keep container tightly sealed.

8. Exposure controls & personal protection

8.1 Control parameters (e.g. occupational exposure limit values, biological limit values)

No data available

8.2 Appropriate engineering controls

Maintain process conditions to ensure temperature is below product flashpoint.

Ensure adequate ventilation.

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure

8.3 Personal protective equipment

- Respiratory protection

Use respirators and components tested and approved under appropriate government shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination(US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

- Eye protection

Chemical safety goggles.

- Hands protection

Compatible chemical-resistant gloves.

- Body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

9. Physical and chemical properties

9.1 Appearance

- **physical state:** Liquid

- **color:** Colorless

9.2 Odour: Pungent smell

9.3 Odour threshold: No data available



- 9.4 pH: No data available
- 9.5 Melting point/freezing point: < -10 °C
- 9.6 Initial boiling point and boiling range: 116.9 °C
- 9.7 Flashing point: 38.9 °C
- 9.8 Evaporation rate: <1
- 9.9 Flammability (solid, gas): Not applicable
- 9.10 Upper/lower flammability or explosive limits: No data available
- 9.11 Vapor pressure: 106 torr @ 55 °C
- 9.12 Solubility in water: React Violently
- 9.13 Vapor density: No data available
- 9.14 Relative density: 0.76 g/cm³
- 9.15 Partition coefficient: n-octanol/water: No data available
- 9.16 Auto-ignition temperature: Do not risk (at 20°C)
- 9.17 Decomposition temperature: No data available
- 9.18 Viscosity: No data available
- 9.19 Formula mass: 131.30 g/mol

10. Stability and reactivity

- 10.1 Chemical stability and possibility of hazardous reactions: Stable in sealed containers stored under a dry inert atmosphere.
- 10.2 Possibility of hazardous reactions: no hazardous polymerization
- 10.3 Conditions to avoid (e.g. static discharge, shock or vibration, etc) Incompatible materials: Heat, flames and sparks. Exposure to moisture.
- 10.4 Incompatible materials: Strong oxidizing agents and halogens, and strong acids
- 10.5 Hazardous decomposition products
carbon monoxide, carbon dioxide, silicon dioxide and organic fumes.

11. Toxicological information

11.1 Information on the likely routes of exposure

- Inhalation: No data available
- Ingestion : No data available
- Eye : No data available
- Skin: No data available

11.2 Health hazards information



- Acute toxic: No data available
- Skin corrosive/irritant: Can cause severe burns to the skin.
- Serious eye damage/eye irritation: Can cause serious damage to eyes.
- Respiratory sensitization: No data available
- Skin sensitization: No data available
- Carcinogenicity: No data available
- Germ Cell Mutagenicity : No data available
- Reproductive toxicity: No data available
- Specific target organ toxicity (single exposure): No data available
- Specific target organ toxicity (repeated exposure): No data available
- Aspiration hazard: No data available

12. Ecological information

12.1 Aquatic and terrestrial ecotoxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Other adverse effects: No data available

13. Disposal considerations

13.1 Disposal method

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

14.1 UN number: 3399

14.2 UN proper shipping name: Organometallic substance, liquid, water-reactive, flammable
(Diisopropylamino Silane)

14.3 Transport hazard class: 4.3

14.4 Packing group (if applicable): II

14.5 Marine pollution (yes/no): No data available

14.6 Special precaution which a user to be aware of or needs to comply with in connection



with transport or conveyance either within or outside their premises:

- F-G / S-N

15. Regulatory information

15.1 Industrial Safety and Health Act: Title compound not listed.

15.2 Toxic Chemical Control Act: Title compound not listed.

15.3 Dangerous Material Safety Control Act: 3rd Group Spontaneously Combustible Materials
and Water-Prohibitive Materials (Organic metal compounds)

15.4 Wastes Management Act: Title compound not listed.

15.5 Other requirements in domestic and other countries: Title compound not listed.

16. Other information

16.1 Information source and references

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16.2 Issuing date: 01/11/2011

16.3 Revision number and date

- Revision number: 4

- Revision Date: November, 28, 2013

16.4 Others: No data available

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