

## MATERIAL SAFETY DATA SHEET

### 1.0 IDENTIFICATION

**Product Name:** (8") 0.18 $\mu$  Silicon Wafer  
**General Use:** Semiconductor Manufacturing  
**Product Description:** Semiconductor Finished product

#### MANUFACTURE

**Company Name:** Tower Semiconductor LTD.  
**Address:** 4321 Jamboree Road NPB, California 92660 USA

**Responsible Div:** QA & Safety  
**Telephone:** +1 949-435-8000  
**Fax:** 1-949-435-8757  
**EMERGENCY TELEPHONE NUMBER:** +1 949-435-8000

### 2.0 COMPOSITION / INFORMATION ON INGREDIENTS

Substances / Mixture : Mixture

Composition (Element)	CAS No.	Proportion (%)
Silicon (Si)	7440-21-3	99.60
Other minority Dopant		
Aluminum (Al)	7429-90-5	<0.25
Titanium (Ti)	7440-32-6	<0.04
Indium (In)	7440-74-6	<0.002
Tungsten (W)	7440-33-7	<0.08
Cobalt (Co)	7440-48-4	<0.002
Arsenic (As)	7440-38-2	<0.002
Copper	7440-50-8	<0.002
Boron	7440-42-8	<0.02
Phosphorus	7723-14-0	<0.002

### 3.0 HAZARDS IDENTIFICATION

Hazard effects  
 Human health effects: Skin contact causes irritation.  
 Environmental effects: NA

Class name of hazard: NA

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### 4.0 FIRST AID MEASURES

Inhalation: NA  
Eye: NA

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### 5.0 FIRE FIGHTING MEASURES

Measures: Shut off fuel as much as possible.  
Equipments: Dry chemical or carbon dioxide should be used for small fire.  
Fire fighters should wear proper protective clothes.

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### 6.0 ACCIDENTAL RELEASE MEASURES

Equip extinguishers in case of ignition.  
Quickly shut off all ignition sources.

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### 7.0 HANDLING AND STORAGE

Handling: Fragile-Handle with care.  
Shut off all sources of ignition.  
Do not bring contaminated protective tool, such as gloves, to the lounge.  
Be careful of personal health after handling.  
Storage: Keep away all sources of ignition.  
Do not heat.  
Store in well-ventilated area.  
Keep dry.

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### 8.0 EXPOSURE CONTRROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES: NA  
EXPOSURE CONTROLS  
Engineering controls: NA  
Personal protection  
Respiratory protection: NA  
Eye protection: NA  
Skin protection

### 9.0 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Chip  
Color: Silver / Gray  
Boiling Point: Not Available  
Melting Point: - Not Available  
Density: - Not Available  
Vapor Pressure: - Not Available  
Vapor Density: - Not Available  
Solubility in water: Insoluble

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### 10. STABILITY AND REACTIVITY

STABILITY: Stable  
MATERIALS TO AVOID

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### 11. TOXICOLOGICAL INFORMATION

Acute toxicity  
Sensitization – N/A  
Chronic Toxicity - N/A  
Mutagen city - N/A  
Carcinogenicity - N/A  
IARC - N/A  
NTP - N/A

OSHA - N/A  
Reproductive and  
Developmental Toxicity - N/A  
Other – N/A

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### 12. ECOLOGICAL INFORMATION

ECOTOXICITY -  
PERSISTENCE AND  
DEGRADABILITY -  
BIOACCUMULATIVE  
POTENTIAL –

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### 13. DISPOSAL CONSIDERATION

Disposal method: All excess material must be collected and transferred to a Professional waste disposal company for treatment.  
Carefully review information in **-7.HANDLING & STORAGE.**

Special control industrial Disposal

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### 14.0 TRANSPORT INFORMATION

UN sorts – N/A  
Domestic regulation – N/A  
Special safety measurement  
And condition

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### 15.0 REGULATORY INFORMATION

N/A

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### 16.0 OTHER INFORMATION

N/A