

## 1. Product and company identification

### Product identifier

Trade name: Beta Prepreg, Beta TX670 DISCO Prepreg

### Relevant identified uses of the substance or mixture and uses advised against

General use: Prepreg material with benzoxazine resin  
For industrial purposes only.

### Details of the supplier of the safety data sheet

Company name:

Airtech International, Inc.  
5700 Skylab Road  
Huntington Beach, CA 92647  
E-mail: [airtech@airtechintl.com](mailto:airtech@airtechintl.com)  
Website: [www.airtechonline.com](http://www.airtechonline.com)  
Telephone: +1 714.899.8100  
Dept. responsible for information:  
Telephone: +1 714.899.8100  
E-mail: [airtech@airtechintl.com](mailto:airtech@airtechintl.com)

Airtech Europe Sarl  
Zone industrielle Haneboesch  
L-4562 Differdange  
Luxembourg  
Website: [www.airtech.lu](http://www.airtech.lu)  
Telephone: +352 582.282  
Dept. responsible for information:  
Telephone: +352 582.282  
E-mail: [sales@airtech.lu](mailto:sales@airtech.lu)

Tygavac Advanced Materials Ltd.  
The Causeway  
Broadway Business Park  
Chadderton, Oldham  
OL9 9XD United Kingdom  
Website: [www.tygavac.co.uk](http://www.tygavac.co.uk)  
Telephone: +44 161.947.1610  
Dept. responsible for information:  
Telephone: +44 161.947.1610  
E-mail: [sales@tygavac.co.uk](mailto:sales@tygavac.co.uk)

Airtech Asia Ltd.  
No. 161 of Anyuan Rd  
Chagugang County  
Wuqing District  
301721, Tianjin, P.R. China  
Website: [www.airtech.asia](http://www.airtech.asia)  
Telephone: +86 22 8862 9800  
Telefax: +86 22 8862 9900  
Dept. responsible for information:  
Telephone: +86 22 8862 9800  
E-mail: [airtech.asia@airtechasia.com.cn](mailto:airtech.asia@airtechasia.com.cn)

### Emergency phone number

**CHEMTREC EMERGENCY PHONE:**  
**Within USA/Canada: 1-(800)424-9300**  
**International: +1 703-741-5970**

## 2. Hazards identification

### Emergency overview

Appearance: Form: solid  
Color: black (with yellowish resin)  
Odor: weak  
Classification: Sensitization - skin - Category 1; Aquatic toxicity - chronic - Category 3;

Hazard symbols:



Signal word:

**Warning**

Hazard statements:

May cause an allergic skin reaction.  
Harmful to aquatic life with long lasting effects.

**Beta Prepreg, Beta TX670 DISCO Prepreg**

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## Precautionary statements:

Avoid breathing dust/fume/gas/mist/vapors/spray.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection.  
IF ON SKIN: Wash with plenty of water/soap.  
Specific treatment (see ' First aid ' on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Dispose of contents/container to hazardous or special waste collection point.

**Regulatory status**

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

**Hazards not otherwise classified**

see section 11: Toxicological information

**3. Composition / Information on ingredients**

## Chemical characterization:

Carbon fabric impregnated with a benzoxazine resin system

## Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 2386-87-0	7-Oxabicyclo[4.1.0]hept-3-ylmethyl-7-oxabicyclo[4.1.0]heptane-3-carboxylate	< 15 %	Sensitization - skin - Category 1.
	Thermoset resin	< 10 %	Skin Irritation - Category 2. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 108-95-2	Phenol	< 0.5 %	Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 3. Acute Toxicity - inhalative - Category 3. Skin Corrosion - Category 1B. Germ cell mutagenicity - Category 2. Specific Target Organ Toxicity (Repeated Exposure) - Category 2.

**4. First aid measures**

In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Consult physician.

Following skin contact: Wash with generous amount of water and soap. Take off contaminated clothing and wash it before reuse.  
In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do not induce vomiting. Seek medical attention.

**Most important symptoms/effects, acute and delayed**

May cause an allergic skin reaction. May cause irritations.

## Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

No data available

Auto-ignition temperature:

No data available

Suitable extinguishing media:

Foam, dry chemical powder, water spray jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet.

### Specific hazards arising from the chemical

Emits toxic fumes under fire conditions.

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Cool endangered containers with water spray and, if possible, remove from danger zone. Use a water fog to control vapors. Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water.

## 6. Accidental release measures

Personal precautions:

Do not inhale vapors or dust particles. Avoid contact with skin and eyes. Wear appropriate protective equipment. Provide fresh air. Keep unprotected people away. Take off contaminated clothing and wash it before reuse.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains. If necessary notify appropriate authorities.

Methods for clean-up:

Avoid generation of dust. Take up mechanically, placing in appropriate containers for disposal. Final cleaning.

## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.

Do not inhale vapors or dust particles. Avoid contact with skin and eyes. Avoid generation of dust.

Wear appropriate protective equipment.

When using do not eat, drink or smoke.

Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse.

Precautions against fire and explosion:

Usual measures for fire prevention.

## Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Store in a dry place.

Keep away from heat sources, sparks and open flames.

Protect from: UV-radiation/sunlight

Hints on joint storage: Keep away from food and drinks.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
108-95-2	Phenol	NIOSH: Ceiling	60 mg/m <sup>3</sup> ; 15.6 ppm (may be absorbed through the skin)
		USA: ACGIH: TWA	19 mg/m <sup>3</sup> ; 5 ppm (may be absorbed through the skin)
		USA: NIOSH: TWA	19 mg/m <sup>3</sup> ; 5 ppm (may be absorbed through the skin)
		USA: OSHA: TWA	19 mg/m <sup>3</sup> ; 5 ppm (may be absorbed through the skin)

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
108-95-2	Phenol	USA: ACGIH-BEI, urine	250 mg/g creatinine	phenol	end of exposure or end of shift

### Engineering controls

Provide adequate ventilation. In case of development of vapors or dust: The use of local exhaust ventilation is recommended.

See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

**Eye/face protection** Safety glasses for normal handling, and sealed goggles for handling material during heated processing or opening packages after material has been in closed storage. PPE to be in accordance with OSHA 29 CFR: 1910.133 or ANSI Z87.1-2010.

**Skin protection** Wear suitable protective clothing.  
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Nitrile rubber (0.4 mm).  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

**Respiratory protection:** Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
For mechanical processing: Dust mask  
When vapors form: Use combination filter type A-P1 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:

Do not inhale vapors or dust particles.

Avoid rubbing. Fibers may penetrate deeper into the skin by rubbing.

Remove fibers and/or dust from working clothes using a vacuum cleaner. Avoid contact with skin and eyes. Avoid generation of dust. Have eye wash bottle or eye rinse ready at work place. When using do not eat, drink or smoke. Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Form: solid Color: black (with yellowish resin)
Odor:	weak
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Water solubility:	almost insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

## 10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerisation: May occur.
Conditions to avoid:	Excessive heating. Avoid generation of dust. Protect from: UV-radiation/sunlight
Incompatible materials:	No data available
Hazardous decomposition products:	Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

Other information: Fibers and dust:  
Causes temporarily: Skin irritation, mucous membrane irritation, eye irritations.  
During mechanical processing the following substances may be formed in traces:  
WHO-fibers.  
Definition WHO-fibers: length (L) > 5 µm and diameter (D) < 3 µm and L:D > 3:1  
Classification WHO-fibers: Causes concern for man owing to possible carcinogenic effects. Should be regarded as if they are carcinogenic to man.

Information about Thermoset resin:  
LD50, rat (oral): >5000 mg/kg (OECD 423).  
LD50, rat (dermal): > 2000 mg/kg (OECD 402).

Mutagenicity (in-vitro):  
Gene-mutations mammalian cells: positive (OECD 476).  
Bacterial mutagenicity: positive (Ames test, OECD 471) .

Information about Phenol:  
LD50, rat (oral): >340 mg/kg (OECD 401).  
LD50, rat (dermal): 660 mg/kg (OECD 402).  
LD50, rat (inhalative): 900 mg/m<sup>3</sup>/8h.

Mutagenicity (in-vitro):  
Chromosomal aberrations: positive.

Chronic toxicity - Carcinogenic effect:  
ACGIH, EPA, IARC, OSHA, and NTP carcinogen lists have been checked for selected similar materials or those components.

Phenol Carcinogen Status:  
IARC Rating: Group 3  
OSHA Carcinogen: not listed  
NTP Rating: not listed

### Symptoms

In case of inhalation:  
Inhaling hazardous decomposing products can cause serious health damage.

After contact with skin: The melted product can cause severe burns.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Information about Thermoset resin:

Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): 1.3 mg/L/48 h (OECD 202).

Algae toxicity:  
NOEC Pseudokirchneriella subcapitata (green algae): 2.8 - 5.3 mg/L/72 h (OECD 201).

Information about  
7-Oxabicyclo[4.1.0]hept-3-ylmethyl-7-oxabicyclo[4.1.0]heptane-3-carboxylate:

Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): 40 mg/L/48 h (OECD 202).

Algae toxicity:  
EC50 Pseudokirchneriella subcapitata (green algae): 90 mg/L/72 h (OECD 201).

Fish toxicity:  
EC50 Oncorhynchus mykiss: 24 mg/L/96 h (OECD 203).

### Mobility in soil

No data available

### Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.

Information about  
7-Oxabicyclo[4.1.0]hept-3-ylmethyl-7-oxabicyclo[4.1.0]heptane-3-carboxylate:  
71%/28d, failing 10-d window (OECD 301 B).

### Additional ecological information

Volatile organic compounds (VOC):  
0 % by weight

General information: Discharge into the environment must be avoided.

## 13. Disposal considerations

### Product

Recommendation: Dispose of waste according to applicable legislation.

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## 14. Transport information

### USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

### Sea transport (IMDG)

Proper shipping name: Not restricted  
Marine pollutant: no

**Air transport (IATA)**

Proper shipping name: Not restricted

**Further information**

No dangerous good in sense of these transport regulations.

**15. Regulatory information**

**National regulations - U.S. Federal Regulations**

Carbon fibers:

TSCA Inventory: listed  
TSCA HPVC: not listed  
NIOSH Recommendations:  
Occupational Health Guideline: 0307

7-Oxabicyclo[4.1.0]hept-3-ylmethyl-7-oxabicyclo[4.1.0]  
heptane-3-carboxylate:

TSCA Inventory: listed  
TSCA HPVC: not listed  
TSCA Inventory: listed  
TSCA HPVC: not listed  
Carcinogen Status:  
IARC Rating: Group 3  
OSHA Carcinogen: not listed  
NTP Rating: not listed  
Clean Air Act:  
Hazardous Air Pollutants: Code XO  
SOCMI Chemical: yes  
Clean Water Act:  
Hazardous Substances: RQ 1000 lbs.  
Priority Pollutant: yes  
Other Environmental Laws:  
CERCLA: RQ 1000 lbs.  
RCRA Hazardous Wastes: Code U188  
RCRA Groundwater Monitoring: Methods 8040,  
8270 / PQL 1, 10  
SARA Title III Section 302, EHS: TPQ 500/10000  
lbs. / RQ 1000 lbs.  
SARA Title III Section 313, Toxic Release: Conc.  
1.0% / Threshold Standard  
NIOSH Recommendations:  
Occupational Health Guideline: 0493

Phenol:



**National regulations - U.S. State Regulations**

Phenol: California Proposition 65 code: not listed  
 Delaware Air Quality Management List:  
 DRQ: 1000 - RQ State: Federal Regulations Apply  
 Idaho Air Pollutant List:  
 Title 585: AAC: 0.95 - EL: 1.27 - OEL: 19 - Title 586: -  
 Maine Hazardous Air Pollutants:  
 Me 2005: HAP - Hap Rpt: 2000  
 Massachusetts Haz. Substance codes: 2,4,5,6 \*E\* F6 F8 F9  
 Minnesota Haz. Substance:  
 Codes: ANO - Ratings: 8.45 - Status: Air Pollutant. Title III. TRI. Water Pollutant  
 New Jersey RTK Hazardous Substance:  
 DOT: 1671 - Sub No.: 1487 - TPQ: - EHS: Yes  
 New York List of Hazardous Substances:  
 RQ-Air: 1000 - RQ-Land: 1 - Note: No Note Associated with this chemical.  
 Pennsylvania Haz. Substance code: E  
 Washington Air Contaminant:  
 TWA: 5 ppm - 19 mg  
 Skin: Protective measures should be taken to prevent or reduce skin absorption.

**National regulations - Great Britain**

Hazchem-Code: -

**16. Other information**

Text for labeling: Contains < 15 %  
 7-Oxabicyclo[4.1.0]hept-3-ylmethyl-7-oxabicyclo[4.1.0]heptane-3-carboxylate, < 10 %  
 Thermoset resin, < 0.5 % Phenol. Safety data sheet available on request.

Hazard rating systems: NFPA Hazard Rating:  
 Health: 1 (Slight)  
 Fire: 1 (Slight)  
 Reactivity: 0 (Minimal)



HMIS Version III Rating:  
 Health: 1 (Slight)  
 Flammability: 1 (Slight)  
 Physical Hazard: 0 (Minimal)  
 Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Literature: - IARC Vol 81, 23.08.2002 - Man-made Vitreous Fibers

Reason of change: Changes in section 1: Company/undertaking identification

**Department issuing data sheet**

Contact person: see section 1: Dept. responsible for information

This data sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, and which additional precautions may be necessary. All health and safety information contained in this data sheet should be provided to your employees and customers. It is your responsibility to develop appropriate workplace instructions and training programs for employees.

As the conditions and methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. All statements or suggestions are made without warranty, expressed or implied, regarding accuracy of information, the hazards connected with the use of the product or the results to be obtained from the use thereof.