

## KYDEX<sup>®</sup> FST Product Overview MSDS - 104

### Section 1: Chemical Product and Company Identification

**Product/Chemical Name:** KYDEX<sup>®</sup> FST thermoplastic sheet  
**Other Designations:** Modified Polycarbonate copolymer (CASRN proprietary)  
**General Use:** Thermoforming  
**Manufacturer:** Kleerdex Company, LLC, 6685 Low Street, Bloomsburg, PA 17815, PHONE 570.387.6997,  
 FAX 570.387-8722  
**Emergency Phone Numbers:** 570.387.6997. For transportation emergencies call CHEMTREC at 800.424.9300.

### Section 2: Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
Modified Polycarbonate copolymer	TRADE SECRET	0-99

### Section 3: Hazards Identification

#### Emergency Overview:

KYDEX<sup>®</sup> FST thermoplastic sheet is in general a non-hazardous polymeric material and does not present any serious hazards during its normal handling and use. As with any material; however, there are guidelines that should be followed in an emergency situation. If dust or vapors are inhaled, get to well ventilated area. If skin or eyes are irritated, flush with water for 15 minutes.

HMIS	
H	0
F	1
R	0
PPE†	
†Sec. 8	

#### Potential Health Effects:

**Primary Entry Routes:** Inhalation, skin/eyes, ingestion (vapors if burned or dust from machining the sheet)

**Target Organs:** Respiratory system, eyes

#### Acute Effects:

**Inhalation:** Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills, and fever. Prolonged inhalation of dust from cutting or machining may cause nose, throat and upper respiratory tract irritation.

**Eye:** Excessive heating may lead to decomposition and dust from cutting could cause eye irritation.

**Skin:** Dust from cutting and machining may be irritating to skin.

**Ingestion:** Not a likely route of exposure

**Carcinogenicity:** OSHA, IARC and/or NTP have listed carbon, titanium dioxide, crystalline silica (quartz), respirable glass and certain heavy metals, present in some colourant and fillers, as carcinogens. If these materials are present in this product at significant quantities, they are shown in Section 2. These materials are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

**Medical Conditions Aggravated by Long-Term Exposure:** Not known

**Chronic Effects:** Not known

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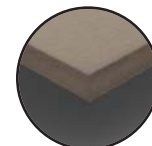
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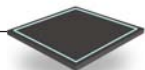
#### Customer Service

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### Section 4: First Aid Measures

**Inhalation:** Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

**Eye Contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.

**Skin Contact:** Cool skin rapidly with cold water after contact with hot polymer. Wash off immediately with soap and plenty of water. Consult a physician.

**Ingestion:** No hazards which require special first aid measures

**Special Precautions/Procedures:** Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

### Section 5: Fire-Fighting Measures

**Autoignition Temperature:** 630°C (1166°F), estimated

**Explosive Limits:**

LEL: Not available

UEL: Not available

**Flammability Classification:** Not flammable

**Extinguishing Media:** Water spray mist or foam

*\*Carbon Dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition*

**Hazardous Combustion Products:** Fire will produce dense, black smoke containing hazardous combustion products, carbon oxides, and hydrocarbon fragments.

**Fire-Fighting Instructions:** Keep unauthorized personnel removed.

**Fire-Fighting Equipment:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors.

### Section 6: Accidental Release Measures

**Spill /Leak Procedures:** Not applicable

**Cleanup:** If dust or powder from cutting and machining the plastic sheet is spilled, vacuum or sweep up and place in containers for recovery or disposal.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

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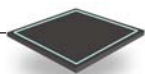
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### Section 7: Handling and Storage

**Handling Precautions:** Dust levels should be kept below respiratory dust concentrations of 5 mg/m<sup>3</sup>. Take proper care when moving, loading, or unloading. Electrostatic charge may build up during handling; grounding of equipment is recommended.

**Storage Requirements:** Store in a cool and dry area. Keep away from heat and sources of ignition.

**Regulatory Requirements:** KYDEX sheet is not regulated.

### Section 8: Accidental Release Measures

**Engineering Controls:** Maintain levels of airborne contaminants below exposure levels by controlling general and local room ventilation in areas where machining, cutting or thermoforming occurs. Ground equipment to prevent build up of electrostatic charge. Provide for appropriate exhaust ventilation at machinery. Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection.

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Protective gloves and long sleeved clothing. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. In addition, use full-face shield when cleaning processing fume condensates from hood, ducts, and other surfaces.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

### Section 9: Physical and Chemical Properties

**Physical State:** Solid

**Appearance and Odor:** Opaque plastic sheets; none or slight odor

**Odor Threshold:** Not available

**Vapor Pressure:** Negligible

**Vapor Density (Air=1):** Not available

**Formula Weight:** Not available (Mix)

**Density:** 1.3-1.4 g/cc

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.3-1.4

**pH:** Not available

**Water Solubility:** Insoluble

**Boiling Point:** Not available

**Freezing/Melting Point:** This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.

**Refractive Index:** Not available (opaque)

**Surface Tension:** Not available

**% Volatile:** Negligible

**Evaporation Rate:** Negligible

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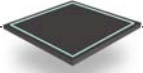
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### Section 10: Stability and Reactivity

**Stability:** KYDEX® FST sheet is stable at room temperature under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization WILL NOT occur.

**Conditions to Avoid:** Avoid temperatures above 630°C. To avoid thermal decomposition, do not overheat. Overheating can release hazardous gases.

**Hazardous Decomposition Products:** Processing fumes evolved at recommended processing conditions may include trace levels of hydrocarbon fragments, phenol, alkylphenols, diarylcarbonates.

### Section 11: Toxological Information

#### **Toxicity Data:\***

**ELD50/oral/rat:** >5000 mg/kg

**LD50/dermal/rabbit:** >2000 mg/kg

**Inhalation:** Pellet inhalation unlikely due to physical form.

**Eye Contact:** Resin particles, like other inert materials, are mechanically irritating to eyes.

**Skin Contact:** Pellets not likely to cause skin irritation.

**Ingestion:** Pellet ingestion unlikely due to physical form.

**Chronic Toxicity:** No information available

**Subchronic Toxicity:** No data available

**Primary Irritation:** Substance does not generally irritate and is only mildly irritating to the skin.

**IARC:** Not Listed

**OSHA:** Not regulated

**NTP:** Not tested

**Remarks:** The toxicological data has been taken from products of similar composition.

**Special Studies:** No Information

### Section 12: Ecological Information

Do not flush into surface water or sanitary sewer system.

### Section 13: Disposal Considerations

Wastes can be landfilled. Dispose of in accordance with federal, state, and local regulations.

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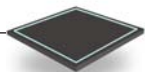
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## KYDEX® FST Product Overview MSDS - 104

### Section 14: Transport Information

#### DOT Transportation Data (49 CFR 172.101):

Shipping Name: KYDEX sheet

Shipping Symbols: None

Hazard Class: Not regulated

ID No.: Not applicable

Packing Group: Not applicable

Label: Not applicable

Special Provisions (172.102): None

Packaging Authorizations: None

Quantity Limitations: None

Vessel Stowage Requirements: None

### Section 15: Regulatory Information

#### International Inventories:

TSCA (USA): Not listed

DSL/NDSL (Canada): Not listed

EINECS/ELINCS (Europe): Not listed

ENCS (Japan): Not listed

IECA (China): Not listed

KECL (Korea): Not listed

PICCS (Philippines): Not listed

AICS (Australia): Not listed

#### Other Inventory Information:

A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components. A "Not listed" entry above indicates one or more components is restricted from import or manufacture into that country/region.

#### SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA (311, 312) hazard class:

Acute Health Hazard N

Chronic Health Hazard N

Fire Hazard N

Sudden Release of Pressure Hazard N

Reactive Hazard N

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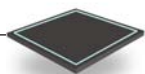
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### Section 15: Regulatory Information (continued)

**Canada:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS hazard class:**

Non-controlled

**California Proposition 65:**

This product does not contain components known to the State of California to cause cancer and/or reproductive effects.

**RoHS EU Directive 2002/95/EC:**

This product complies with RoHS - it does not intentionally contain banned chemicals.

### Section 16: Other Information

**Revision Notes:** None

**Additional Hazard Rating Systems:** None

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