

Safety Data Sheet

Tecanat GF20



ISSUE DATE: 05/29/2015

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Tecanat GF20
SYNONYMS: Not Applicable
PRODUCT COLORS: Natural and Black

MANUFACTURER: Ensinger Inc.
DIVISION: Stock Shapes
ADDRESS: 365 Meadowlands Blvd., Washington, PA 15301

EMERGENCY PHONE: (724) 746-6050
OTHER CALLS: (856) 227-0500

CHEMICAL NAME: Poly (bisphenol-A-carbonate)
CHEMICAL FAMILY: Polycarbonate
CHEMICAL FORMULA: basic formula (CH₂O)_n

PRODUCT USE: Stock Shape for Machining
PREPARED BY: Allyson M. Crouse, Technical Resource Manager

SECTION 1 NOTE: Revised May 29, 2015

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Mechanical injury only.

ROUTES OF ENTRY: Eyes

POTENTIAL HEALTH EFFECTS

EYES: Solid or dust causes irritation or corneal injury due to mechanical action.

SKIN: Essentially nonirritating to skin. Mechanical injury only. Molten material may burn skin.

INGESTION: Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. Now hazards anticipated from ingestion incidental to industrial exposure.

INHALATION: Dust may cause irritation to upper respiratory tract. At room temperature, exposure to vapors are unlikely due to physical properties, normal processing temperatures may generate vapors, which may cause irritation if ventilation is inadequate.

ACUTE HEALTH HAZARDS: None Known

CHRONIC HEALTH HAZARDS: None Known

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Known

CARCINOGENICITY:

In 1995, the International Agency for Research on Cancer (IARC) concluded that there is "sufficient evidence in experimental animals for the carcinogenicity of carbon black." IARC's overall evaluation was that "Carbon black is possibly carcinogenic to humans (2B)." In 2006, IARC re-affirmed this classification. There has been no causal link between carbon black exposure and cancer risk in humans. Applying the rules of the Globally Harmonized System of Classification and Labeling (GHS, e.g. UN 'Purple Book', EU CLP Regulation) the results of repeated dose toxicity and carcinogenicity studies in animals do not lead to classification of Carbon Black for Specific Target Organ Toxicity (Repeated exposure) and carcinogenicity. UN GHS says, that even if adverse effects are seen in animal studies or in-vitro tests, no classification is needed if the mechanism or mode of action is not relevant to humans. The European CLP Regulation also mentions, that no classification is indicated if the mechanism is not relevant to humans. Furthermore, the CLP guidance on classification and labeling states, that "lung overload" in animals is listed under mechanism not relevant to humans.

Fibrous Glass, 65997-17-3

ACGIH: 5 mg/m³ (TWA, Inhalable Fraction) Notations: Not Classifiable as a Human Carcinogen;
Crit Eff: Upper respiratory tract irritation.

Carbon Black, CAS: 1333-86-4

OSHA: (PEL, 8HR) 3.5 mg/m³ (FRL_TWA)

OSHA: (PEL, 8HR) 3.5 mg/m³ (TL_PEL)

ACGIH: TWA: 3.5 mg/m³; Notations: Not Classifiable as a Human Carcinogen

Particulates

OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m³ (TWA, Total Dust)

Particulates not otherwise regulated/OSHA (PEL) 5 mg/m³ (TWA, Respirable Dust)

ACGIH: Particulates not otherwise regulated/ACGIH (TLV) 10 mg/m³ (TWA, Total Dust)

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:

<u>CAS NO.</u>	<u>% WT</u>
Poly (bisphenol-A-carbonate), 111211-39-3	70 - 100
Fibrous Glass, 65997-17-3	10 - 30
Carbon Black, 1333-86-4	0 - 1.0

The non-hazardous components and exact percentage of the composition have been withheld as a trade secret.

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This product consists primarily of high molecular weight polymers, which are not expected to be hazardous.

This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not regarded as hazardous under 2012 OSHA Hazard Communication Standard; 29CFR Part 1910.1200.

4. FIRST AID MEASURES

EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Mechanical effects only.

SKIN: Wash off in flowing water or shower.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper industrial handling. Call a poison control center/physician, if patient feels unwell.

INHALATION: Remove to fresh air, if effects occur. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

Auto ignition Temperature: 630°C (1166°F), estimated

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or "alcohol" foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended, because their lack of cooling capacity may permit re-ignition on larger resin fires.

SPECIAL FIRE FIGHTING PROCEDURES: May produce toxic fume of carbon monoxide, if burning. Do not use a solid water stream as it may scatter and spread fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

HAZARDOUS DECOMPOSITION PRODUCTS: Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, and hydrocarbon fragments.

SECTION 5 NOTES: Wear full protective suit. In case of combustion, use a suitable breathing apparatus. 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.

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6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Ventilate the area and prevent access to unauthorized people. Wear suitable personal protective equipment. Do not allow entry to drains, water courses or soil. Prevent spreading by use of suitable barriers. Take up with suitable equipment, fill up in air-tight containers and give further treatment as soon as possible.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of processing equipment must be earth ground.

Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.

OTHER PRECAUTIONS: Obtain special instructions, before use. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke; when machining this product. Use personal protective equipment as required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Standard ventilation required

VENTILATION: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: For most conditions a dust mask is sufficient; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

EYE PROTECTION: Safety glasses with side shields should be sufficient for most operations; however, for dusty operations wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None Known

EXPOSURE GUIDELINES:

Fibrous Glass, 65997-17-3

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	semi-translucent stock shape
ODOR:	Not Applicable
PHYSICAL STATE:	Solid
IGNITION TEMPERATURE:	630°C (1166°F), estimated
MELTING POINT:	This product does not exhibit a sharp melting point, but softens gradually over a wide range of temperatures.
SPECIFIC GRAVITY (H ₂ O = 1):	>1
EVAPORATION RATE:	Not Applicable
SOLUBILITY IN WATER:	Insoluble

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID (STABILITY): Avoid temperatures above 320°C. To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature.

INCOMPATIBILITY (MATERIAL TO AVOID): None known

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Trace levels of hydrocarbons, phenols, alkylphenols, diarylcarbonates, bromine, hydrogen bromide, brominated hydrocarbons

HAZARDOUS POLYMERIZATION: Not Applicable

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: No data – In solid state, this material is not considered as being harmful to human health.

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Acute Toxicity for Base Resin

LD50/oral/rat: >5000 mg/kg

LD50/dermal/rabbit: >2000 mg/kg

Carcinogenicity: There are no known carcinogenic chemicals in this product except specifically mentioned below.

Chemical Name	IARC:
Fibrous Glass, 65997-17-3	3
Carbon black, 1333-86-4	2B

Carbon Black: The International Agency for Research on Cancer (IARC) has determined that carbon black is a class 2B known animal and possible human carcinogen by the route of inhalation. Rats exposed to high doses of carbon black by inhalation developed statistically significant increases in lung fibrosis and lung tumors.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No data – This material does not harm the environment, but is not biodegradable.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of contents/containers in accordance with local, regional, national and international regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

Not regulated

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): In compliance with TSCA Inventory requirements for commercial purposes.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency

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Planning and Community Right-To-Know Act of 1986 and 40CFR372.

California Prop. 65 : Components in this product known to the State of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
Fibrous Glass, 65997-17-3	10 - 30	Listed: July 1, 1990 Carcinogenic (airborne, unbound particles of Respirable size)
Carbon black, 1333-86-4	0 – 1.0	Listed: February 21, 2003 Carcinogenic. (airborne, unbound particles of Respirable size)

PA Right to Know

Regulated Chemical(s): Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances):
Carbon Black

NJ Right to Know

Regulated Chemical(s): Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Carbon Black

16. OTHER INFORMATION

ADDITIONAL INFORMATION

MEDICAL USE: CAUTION – Do not use in medical applications involving permanent implantation in the human body.

This Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe this information to be correct but cannot guarantee its accuracy or completeness. Health and safety precaution in this data sheet may not be adequate for all individuals and/or situations. It is the user's responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in the data sheet shall be construed as a permission or recommendation for the use of any product in a manner that may infringe existing patents. No warranty is made, either expressed or implied.