

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union standards

TECHNIGLASS

1. PRODUCT IDENTIFICATION

<u>TRADE NAME (AS LABELED):</u>	Papyros®
<u>CHEMICAL NAME/CLASS:</u>	Non Flammable paper
<u>MANUFACTURER'S NAME:</u>	Techniglass Corporation
<u>ADDRESS:</u>	80 Thompson Street North Tonawanda, NY 14120 (716) 564-8888
<u>BUSINESS PHONE:</u>	November 9, 2016
<u>DATE ISSUED:</u>	November 9, 2017
<u>PREVIOUS REVISION DATE:</u>	

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Product Description: This product is a non-flammable paper used as a barrier between glass and ceramic shelf. **Health Hazards:** Dust generated by paper decomposition may be irritating to skin, eyes and respiratory tract. The chemical, physical, and toxicological properties have not been thoroughly investigated. **Flammability Hazards:** This product is Non-Flammable. **Reactivity Hazards:** None known. **Environmental Hazards:** This is not expected to be toxic to aquatic life. **Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

Hazard Classification: [Xi] Irritant

Risk Phrases: R37 / 38 Irritating to respiratory system and skin

Safety Phrases: S37 / 39 Wear suitable gloves and eye/face protection

Annex II Hazard Symbol:



HEALTH HAZARDS OR RISKS FROM EXPOSURE:

Acute	This substance may be irritating upon contact to the eyes and the skin. Prolonged exposure to dust may cause irritation to respiratory tract.
Chronic	None known

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3. COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	HAZARD CLASSIFICATION; RISK PHRASES
Aluminum Hydroxide	21645-51-2	244-492-2	0373	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Hydrated Magnesium Silicate	1343-90-4	Not Listed	Not Listed	HAZARD CLASSIFICATION: [X1] IRRITANT RISK PHRASES: R37/38
Alumina Borosilicate Glass	65997-17-3	266-046-0	Not Listed	HAZARD CLASSIFICATION: [X1] IRRITANT RISK PHRASES: R37/38
Pulp	9004-34-6	232-674-9	Not Listed	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Resin	NA	Not Listed	Not Listed	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Epoxy Resin	NA	Not Listed	Not Listed	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Balance of water and other components. Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens)				HAZARD CLASSIFICATION: NOT CLASSIFIED RISK PHRASES: NONE

N.E. = Not Established.

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

See Section 2 for full text of Ingredient Risk Phrases and Safety Phrases

4. FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

EYE CONTACT: If product dust contacts the eyes, immediately flush the eyes with large amounts of water. Get medical attention if irritation occurs.

SKIN CONTACT: Wash the affected areas with soap and water. Remove contaminated clothing. If irritation occurs seek medical attention.

INHALATION: If large amounts of this product dusts are inhaled or if breathing difficulties occur, move the exposed person to fresh air at once. If breathing continues to be difficult or has stopped, perform artificial respiration. Get medical attention immediately.

INGESTION: If dusts from this product has been swallowed, do not induce vomiting. Seek medical attention immediately.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin problems may be aggravated by prolonged contact.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

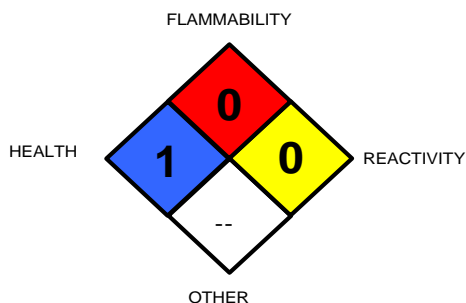
FLASH POINT: Not Established

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AUTOIGNITION TEMPERATURE: Not Established
FLAMMABLE LIMITS (in air by volume, %): Not Established
FIRE EXTINGUISHING MATERIALS: Suitable for surrounding area
UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known
 Explosion Sensitivity to Mechanical Impact: Not Sensitive
 Explosion Sensitivity to Static Discharge: Not Sensitive

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Proper protective equipment should be used. Personnel should be trained for spill response operations.

Spills: Avoid generating dust. Place all spill residue in an appropriate container and seal. Dispose of in accordance with applicable Federal, State, and local regulations.

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after. Do not eat, drink, smoke, or apply cosmetics while handling dusts generated by this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Wear recommended NIOSH approved respirator, safety glasses and gloves. Remove contaminated clothing after use.

STORAGE AND HANDLING PRACTICES: Store product in a dry location with temperatures between 50 - 86°F and 70% relative humidity. Protect from physical damage.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation, and process enclosure if necessary, to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH-TLV's	OSHA PEL's	NIOSH-TLV's	Other
Aluminum Hydroxide	21645-51-2	Not Established	Not Established	Not Established	Not Established
Hydrated Magnesium Silicate	1343-90-4	Not Established	Not Established	Not Established	Not Established
Alumina Borosilicate Glass	65997-17-3	Not Established	Not Established	Not Established	Not Established
Pulp	9004-34-6	10 mg/m3 (total) 3 mg/m3 (resp)	15 mg/m3 (total) 5 mg/m3 (resp)	15 mg/m3 (total) 5 mg/m3 (resp)	None
Resin	NA	Not Established	Not Established	Not Established	Not Established
Epoxy Resin	NA	Not Established	Not Established	Not Established	Not Established

Currently, International exposure limits are established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

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RESPIRATORY PROTECTION: If exposure limits are exceeded, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under U.S. Federal OSHA's Respiratory Protection Standard (1910.134-1998) or the regulations of various U.S. States, Canada, EU Member States, or those of Japan. Air-purifying respirators with dust/mist/fume filters are recommended if operations may produce mists or sprays from this product.

EYE PROTECTION: Safety glasses with side shields recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Compatible protective gloves recommended. Wash hands after removing gloves. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate for task. Coveralls, rubber aprons, or chemical protective clothing made from natural rubber are generally acceptable, depending upon the task. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

9. PHYSICAL and CHEMICAL PROPERTIES

DENSITY: Not Applicable

SPECIFIC GRAVITY @ 20°C: 0.9 (water=1)

VAPOR PRESSURE, mm Hg @ 20°C (68°F): Not Established

ODOR THRESHOLD: No odor

APPEARANCE, ODOR and COLOR: Nonflammable paper with no odor.

EVAPORATION RATE (n-BuAc=1): Not Applicable

SOLUBILITY IN WATER: Insolubility

pH: NA

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: Hydrocarbons may be emitted

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: None known

HAZARDOUS DEPOLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None known

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The specific toxicology data available for components greater than 1% in concentration are as follows:
No specific data available on components.

Product Testing:

A sample media and an analytical laboratory to analyze components potentially released from your kiln during the process using this product was selected. The sampling was intended to ascertain whether potentially hazardous compounds could be released from the kiln during the heating process, and whether they were in potentially harmful quantities.

A total of three samples were collected: two metals scans (one bulk, one airborne) and one airborne VOC scan. Both of the air samples were collected adjacent to the kiln during the hours that the kiln was heated with the paper inside. The airborne metals identified were substantially below the federal OSHA's, NIOSH recommendations, and Washington State's occupational permissible exposure limits (PELs). These limits indicate an allowable concentration to which an employee may be exposed for 8 hours a day during a 40-hour workweek over an occupational lifetime without adverse health effects. Note that the concentrations identified are approximately a thousand times less than the permissible limits for an 8-hour workday.

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SUSPECTED CANCER AGENT: The components of this product are not listed by agencies tracking the carcinogenic potential of chemical compounds as follows:

Carcinogenity

NTP Regulated	No
IARC Regulated	No
OSHA Regulated	No

IRITANCY OF PRODUCT: Airborne dust of this product can irritate eyes.

SENSITIZATION TO THE PRODUCT: These products are not known to cause human skin or respiratory sensitization.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: The components of this product are not reported to produce mutagenic effects in humans.

Embryotoxicity: The components of this product are not reported to produce embryotoxic effects in humans.

Teratogenicity: The components of this product are not reported to produce teratogenic effects in humans.

Reproductive Toxicity: An epidemiology study under conditions of normal occupational exposure indicated no effect on fertility.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

Ecotoxicity	No data available
BOD5 and COD	No data available
Products of Biodegradation	No data available
Toxicity	No data available
Other Ecological	No data available
Remarks	

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

DOT Classification	Non-regulated material
Special Provisions for Transport	None
DOT Labeling Requirements	None
IATA Labeling Requirements	None

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is not classified as Dangerous Goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): This product is not classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: This product is not classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.

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15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

SARA Reporting Requirements

SARA Title III Section 313
None

SARA Title III Section 312 Hazard Category (40 CFR 311/312)

Acute Health: Yes Release of Pressure: No

Chronic Health: No Reactive: No

Fire: No

Marine Pollutant

This product contains no component listed as a Marine Pollutant under 49 CFR 172.101, Appendix B

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

U.S. TSCA INVENTORY STATUS: All of the components of this product are listed in the TSCA Inventory or have applied for listing.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain any component above the 0.1% level which is listed as a California Proposition 65 chemical. Note the chemical identity of some or all components present is confidential business information (trade secret) and is being withheld as permitted by 29CFR1910.1200 (i).

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Not Classified

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

Hazard Classification: [Xi] Irritant

Risk Phrases: R37 / 38 Irritating to respiratory system and skin

Safety Phrases: S37 / 39 Wear suitable gloves and eye/face protection

Annex II Hazard Symbol:



AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Not all components Listed

Australian Inventory of Chemical Substances (AICS): Not all components Listed

Korean Existing Chemicals List (ECL): Not all components Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Not all components Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Not all components Listed

Swiss Gift List of Toxic Substances: Not all components Listed

U.S. TSCA: Listed or have applied for listing

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16. OTHER INFORMATION

PREPARED BY: Cheryl Gondek

MSDS Authoring Services

DATE OF PRINTING: November 3, 2017

All chemicals may pose unknown hazards and should be used with cautions. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Techniglass Corporation assumes no responsibility for the completeness or accuracy of the information contained herein. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and protection of the environment.