A5000
Release film

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Health and Safety at Work - Control of Substances Hazardous to Health
Material Safety Data Sheet

MSDS No: A5000

1) Chemical Product and Company Identification
PRODUCT NAME: Norton® FEP Release Film
OTHER/GENERIC NAMES: Fluorinated Ethylene Propylene Copolymer, FEP Film
FORM: Colored transparent plastic film
PRODUCT USE: Release film.

MANUFACTURER/DISTRIBUTOR: Aerovac Systems Ltd
500 Bradford Road
Sandbeds
Keighley
West Yorkshire
BD20 5NG
England
For more information call +44 (0) 1274 550500 (Mon - Thurs 8:30-17:00, Fri 8:30-13:45).

2) Composition/Information on Ingredients

Ingredient Name	CAS Number	Weight %
FEP Copolymer (Fluorinated Ethylene Propylene Copolymer)	25067-11-2	>99%
Inert pigment (heavy metal free)	various	<1%

This product as supplied is not considered hazardous as defined in the US Code of Federal Regulations, 29CFR 1910.1200. This product is considered an “article” as supplied for its intended and foreseen use.

All components appear on TSCA Inventory. This product contains no substances at or above the reporting threshold under Section 313 of Title III of the US EPA Superfund Amendments and Reauthorization Act of 1986 and US Code of Federal Regulations, 40CFR part 372, based on available data.

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3) Hazards Identification

EMERGENCY OVERVIEW: No special dangers are known. Use within specified processing parameters, high temperatures could evolve irritating and/or toxic fumes.
Potential Health Hazards:
SKIN: Not anticipated under recommended usage conditions
EYES: Not anticipated under recommended usage conditions.
INHALATION: Not anticipated under recommended usage conditions.
INGESTION: Not anticipated under recommended usage conditions.
DELAYED EFFECTS: None
Ingredients found on one of the OSHA designated carcinogen lists are listed below:
None listed

4) First Aid Measures

SKIN: Not anticipated under recommended usage conditions. For hot product, immediately immerse in or flush affected area with large amounts of cold water. Cover with clean cotton sheeting or gauze and seek medical advice.
EYES: Not anticipated under recommended usage conditions. If necessary, flush eyes with plenty of water. If symptoms persist or injury is suspected, seek medical advice.
INHALATION: Not anticipated under recommended usage conditions. May cause influenza like symptoms if thermal decomposition products are inhaled (polymer fume-fever), chills, fever, head-ache. Avoid contamination of tobacco products. Remove victim to fresh air. If not breathing, perform mouth to mouth resuscitation. Seek medical attention.
INGESTION: Not anticipated under recommended usage conditions.
ADVICE TO PHYSICIAN: Expect influenza-like symptoms if thermal decomposition products are inhaled: chills, fever, head-ache, shortness of breath, coughing. This is known as polymer fume-fever and will pass after 24 to 48 hours providing no further exposure occurs.

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5) Flammable Properties
Flammable Properties
FLASH POINT: Does not flash
FLASH POINT METHOD: N/A
AUTO IGNITION TEMPERATURE: Not known
UPPER FLAME LIMIT (volume % in Air): N/A
LOWER FLAME LIMIT (volume % in Air): N/A
OXYGEN INDEX: >95%
EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.
UNUSUAL FIRE AND EXPLOSIVE HAZARDS: Does not burn without external source of fuel. Fluoropolymers can increase the relative toxic properties of the gases evolved during a fire.
SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Use self contained breathing apparatus.

6) Accidental Release Measures
IN CASE OF SPILLS OR OTHER RELEASE: Sweep or pick up and dispose of in a solid waste container.

7) Handling and Storage
NORMAL HANDLING: Product is physiologically inert and non toxic at normal temperatures. Above 230ºC, some decomposition of FEP products can be expected with evolution of gaseous and particulate products which are toxic if inhaled. This can give rise to a characteristic syndrome with influenza type symptoms known as polymer fume fever. These symptoms subside within 24-48 hours away from further exposure with no long term effects. Keep away from ignition sources- do not smoke while using fluoropolymers.
STORAGE RECOMMENDATIONS: No special requirements.

8) Exposure Controls/Personal Protection
VENTILATION: Ensure good ventilation or exhaust if there is the possibility of fumes being evolved. Not required if material is used within specified processing parameters.
FIRE AND EXPLOSION: Not applicable
PERSONAL PROTECTIVE EQUIPMENT: None required if material is used within specified processing parameters. Normal safety equipment should always be used in an industrial environment.
ADDITIONAL RECOMMENDATIONS: Heat resistant clothing and skin covering when working with hot product. Do not smoke while handling material. Keep tobacco products away from sources of contamination: hands and clothes.
EXPOSURE GUIDELINES/LIMITS: Not applicable
OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS: Not available.

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9) Physical and Chemical Properties
APPEARANCE: Colored transparent film
PHYSICAL STATE: Solid
ODOR: Odorless
SPECIFIC GRAVITY (H2O = 1): 2.12-2.17
SOLUBILITY IN WATER (weight %): Insoluble

pH: Not applicable
BOILING POINT: Not applicable
MELTING POINT: 260ºC
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
EVAPORATION RATE: Not applicable
% VOLATILES: Not applicable
IGNITION TEMPERATURE: >500ºC.
FLASH POINT: Does not flash
THERMAL DECOMPOSITION: See Section X.

10) Stability and Reactivity
CHEMICAL STABILITY: Stable. Thermal degradation can begin at 230oC.
CONDITIONS TO AVOID: Avoid exposure to open flame or temperatures exceeding recommended processing temperatures.
INCOMPATIBILITIES/REACTS: Reacts with molten alkali metals and interhalogen compounds. Will burn in atmosphere of 95% oxygen when an ignition source is present.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will evolve hydrofluoric acid, carbonyl fluoride, and other perfluoroolefins.
HAZARDOUS POLYMERIZATION: Will not occur.

11) Toxicological Information
GENERAL: No potential health hazards when used within processing guidelines. Fluoropolymers are physiologically inert and are considered non-toxic.
IMMEDIATE (ACUTE) EFFECTS: See section VII. Material is considered inert.
DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: None known. Material is considered inert.
TOXICITY OF PRODUCT: Non toxic when used within recommended guidelines.
OTHER DATA: None.

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12) Ecological Information
No known harmful effects on the environment. Material is considered inert and not expected to be biodegradable or toxic.

13) Disposal Considerations
Clean material may be recycled.
Dispose of Fluoropolymer material as solid waste according to local regulations.
Dispose of packaging as solid waste according to local regulations.
Can be incinerated only if the HF effluent can be extracted from the fluegases.
Product as shipped is not considered a RCRA hazardous waste if discarded. This information relates only to uncontaminated product. If used in a process which contaminates product, then disposal considerations should be re-evaluated.

14) Transport Information
US DOT HAZARD CLASS: Not regulated.
US DOT ID NUMBER: Not applicable
UN No.: Not determined
ICAO/IATA: Not regulated.
There is no known transportation requirements associated with this material in the form supplied based on currently available data.

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15) Regulatory Information
Toxic Substances Control Act (TSCA)
TSCA INVENTORY STATUS: All components are listed on the TSCA inventory.
OTHER TSCA ISSUES: This product is considered an article under TSCA.
SARA Title III/CERCLA
Reportable Quantities (RQs) and/or Threshold Planning Quantities (TPQs) exist for the following ingredients.
Ingredient Name SARA/CERCLA RQ (lb) SARA EHS TPQ (lb)
No ingredients listed in this section.
Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.
SECTION 311 HAZARD CLASS: None
The following ingredients are SARA 313 Toxic Chemicals, CAS Numbers and weight percents are found in Section II.
Ingredient Name Comment
No ingredients listed in this section.
STATE RIGHT-TO-KNOW
In addition to the ingredients found in Section II, the following are listed for state right-to-know purposes.
Ingredient Name Weight % Comment
No ingredients listed in this section.
ADDITIONAL REGULATORY INFORMATION: None
WHMIS CLASSIFICATION (CANADA): Not a controlled substance. (Considered to be a manufactured article.)
FOREIGN INVENTORY STATUS: Not determined

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16) Other Information
CURRENT ISSUE DATE: May 2010
PREVIOUS ISSUE DATE: April 1996

This material safety data sheet was prepared in compliance with US OSHA Hazard Communication Standard 29CFR 1910.1200 and the European Council Directive 91/155/EEC, 67/548 and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof; however, Saint-Gobain Performance Plastics Corporation makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of workplace risks as required by other health and safety legislation.

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