

Durlon® 7760

SECTION 1. IDENTIFICATION

Product Identifier Durlon® 7760
Product Family Compressed Non Asbestos
Manufacturer Durabla Canada Ltd., 293 University Avenue
PO Box 696, Belleville, ON
Supplier Identifier Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton,
613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0043
Date of Preparation May 31, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Aluminum Silicate	1332-58-7	40-60		

Notes

This product consists of a trade secret formulation comprised of a combination of synthetic rubber binder systems and other fillers such as cellulose, glass, mineral fibres and domestic grade inert clay. This product formulation does not contain asbestos.

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

If irritation occurs or persists from any route of exposure, discontinue use immediately and consult physician. Bring

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water mist, foam, dry chemical or carbon dioxide (CO₂).

Specific Hazards Arising from the Product

Not sensitive to static discharge.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing apparatus and protective clothing must be worn in case of fire. If possible, prevent runoff from entering storm sewers, water bodies or other environmentally sensitive areas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Place spilled material (dust) in a container for disposal. Dispose of all waste according to federal, state, provincial or local laws.

Environmental Precautions

No special precautions are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

No special handling precautions are necessary. It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

Store in a cool, dry place away from direct sunlight to maximize shelf life.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Aluminum Silicate	2 mg/m ³		15 mg/m ³			

OSHA PEL = 0.1 mg/m³ (Respirable dust at crystalline silica)

ACGIH TLV = 0.1 mg/m³ (Respirable dust at crystalline silica)

Appropriate Engineering Controls

General ventilation is usually adequate. If dust or fumes are generated during use, use local exhaust in combination with general ventilation as necessary to remove fumes/dust from the worker's breathing zone and to ensure exposures do not exceed applicable limits.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Not required, if used as directed. Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed. Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Product Identifier: Durlon® 7760 - Ver. 1

SDS No.: 0043

Date of Preparation: May 31, 2017

Date of Last Revision:

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Basic Physical and Chemical Properties

Appearance	Tan.
Odour	Not available
pH	Not applicable
Melting Point/Freezing Point	Not available (melting)
Initial Boiling Point/Range	Not available
Evaporation Rate	Not applicable
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.2 - 1.8
Solubility	Insoluble in water
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Conditions to Avoid

High temperatures. Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

See chemical resistance chart.

Hazardous Decomposition Products

Carbon monoxide. Hydrogen cyanide and hydrogen chloride in small amounts. In the cause of thermal decomposition at temperatures above 250°C (482°F), toxic gases and vapours may occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation.

Acute Toxicity

The LD50 is greater than 5.0 g/kg of body weight

The LD50 is greater than 2.0 g/kg of body weight.

Skin Corrosion/Irritation

Contact with this product may irritate exposed skin and non-irritating skin eyes, but it is recommended to wash the skin after use.

Serious Eye Damage/Irritation

The compound is non-irritant and non-corrosive.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Dust exposure is excess of the TLV is not expected since the materials are primarily bound in the product.

Skin Absorption

No information was located.

Ingestion

Consult physician if necessary.

Carcinogenicity

Known human carcinogen. A1 – Confirmed human carcinogen.

NTP has classified respirable crystalline silica as a probable carcinogen. IARC has established a 1 classification to

crystalline silica as a known carcinogen to humans.

Reproductive Toxicity

Development of Offspring

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No specific data available for this product; however this product is not expected to be readily biodegradable.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

N/A.

Canada

WHMIS 1988 Classification

Not a WHMIS controlled product.

CEPA - National Pollutant Release Inventory (NPRI)

No components of this product are listed as CEPA priority substances.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 1**

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation May 31, 2017

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Product Identifier: Durlon® 7760 - Ver. 1

SDS No.: 0043

Date of Preparation: May 31, 2017

Date of Last Revision:

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Durlon® 9000

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® 9000
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 260°C (500°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0011
Date of Preparation	March 07, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Polytetrafluoroethylene	9002-84-0	70-80	
Fibrous glass	65997-17-3	20-30	
C.I. Pigment Blue 28	1345-16-0	0.1-1.5	

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Product Identifier:	Durlon® 9000
SDS No.:	0011
Date of Preparation:	March 07, 2017

If in eyes: may cause mild irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Fibrous glass	5 mg/m ³ **					
C.I. Pigment Blue 28	0.02 mg/m ³					

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Blue.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Product Identifier: Durlon® 9000
SDS No.: 0011
Date of Preparation: March 07, 2017

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Carcinogenicity

Group 2B – Possibly carcinogenic to humans.

IARC has classified cobalt and cobalt compounds as possibly carcinogenic to humans (Group 2B, monograph 52). Cobalt Aluminate Blue Spinel pigment is the result of high temperature calcinations of the component substances. Due to its unique crystalline structure the properties of the finished pigment do not necessarily reflect the properties of the component metals or oxides.

Key to Abbreviations

Group 2B = Possibly carcinogenic to humans.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product Identifier: Durlon® 9000
SDS No.: 0011
Date of Preparation: March 07, 2017

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation March 07, 2017

Date of Last Revision March 07, 2017

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Product Identifier: Durlon® 9000

SDS No.: 0011

Date of Preparation: March 07, 2017

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Durlon® 9000N

SECTION 1. IDENTIFICATION

Product Identifier Durlon® 9000N
Product Family PTFE
Recommended Use Gasket Material.
Restrictions on Use Maximum service temperature should not exceed 260°C (500°F).
Manufacturer Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Polytetrafluoroethylene	9002-84-0	70-80	
Fibrous glass	65997-17-3	20-30	

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

Product Identifier: Durlon® 9000N

SDS No.: 0017

Date of Preparation:

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Fibrous glass	5 mg/m ³ **					

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Product Identifier: Durlon® 9000N

SDS No.: 0017

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Date of Preparation:

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	White.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Product Identifier: Durlon® 9000N

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Date of Preparation:

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Ingestion

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Product Identifier: Durlon® 9000N

SDS No.: 0017

Date of Preparation:

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Last Revision March 07, 2017

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Product Identifier: Durlon® 9000N

SDS No.: 0017

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Date of Preparation:

Durlon® 9002

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® 9002
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 260°C (500°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0020

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Polytetrafluoroethylene	9002-84-0	70-80	
Fibrous glass	65997-17-3	20-30	
C.I. Pigment Blue 28	1345-16-0	0.1-1.5	

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

Product Identifier: Durlon® 9002

SDS No.: 0020

Date of Preparation:

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Fibrous glass	5 mg/m ³ **					
C.I. Pigment Blue 28	0.02 mg/m ³					

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Product Identifier: Durlon® 9002

SDS No.: 0020

Date of Preparation:

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Blue.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Product Identifier: Durlon® 9002

SDS No.: 0020

Date of Preparation:

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Carcinogenicity

Group 2B – Possibly carcinogenic to humans.

IARC has classified cobalt and cobalt compounds as possibly carcinogenic to humans (Group 2B, monograph 52).

Cobalt Aluminate Blue Spinel pigment is the result of high temperature calcinations of the component substances. Due to its unique crystalline structure the properties of the finished pigment do not necessarily reflect the properties of the component metals or oxides.

Key to Abbreviations

Group 2B = Possibly carcinogenic to humans.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product Identifier: Durlon® 9002

SDS No.: 0020

Date of Preparation:

Page 04 of 05

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Last Revision March 07, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® 9002

SDS No.: 0020

Page 05 of 05

Date of Preparation:

Durlon® 9007

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® 9007
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 260°C (500°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0021

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Polytetrafluoroethylene	9002-84-0	70-80	
Fibrous glass	65997-17-3	20-30	
C.I. Pigment Blue 28	1345-16-0	0.1-1.5	

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

Product Identifier: Durlon® 9007

SDS No.: 0021

Date of Preparation:

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Fibrous glass	5 mg/m ³ **					
C.I. Pigment Blue 28	0.02 mg/m ³					

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Product Identifier: Durlon® 9007

SDS No.: 0021

Date of Preparation:

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Blue.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Product Identifier: Durlon® 9007

SDS No.: 0021

Date of Preparation:

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Carcinogenicity

Group 2B – Possibly carcinogenic to humans.

IARC has classified cobalt and cobalt compounds as possibly carcinogenic to humans (Group 2B, monograph 52).

Cobalt Aluminate Blue Spinel pigment is the result of high temperature calcinations of the component substances. Due to its unique crystalline structure the properties of the finished pigment do not necessarily reflect the properties of the component metals or oxides.

Key to Abbreviations

Group 2B = Possibly carcinogenic to humans.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product Identifier: Durlon® 9007

SDS No.: 0021

Date of Preparation:

Page 04 of 05

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Last Revision March 07, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® 9007

SDS No.: 0021

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Date of Preparation:

Durlon® 9200

SECTION 1. IDENTIFICATION

Product Identifier Durlon® 9200
Product Family PTFE
Recommended Use Gasket Material.
Restrictions on Use Maximum service temperature should not exceed 260°C (500°F).
Manufacturer Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0019

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Polytetrafluoroethylene	9002-84-0	60-70	
Barium sulfate	7727-43-7	30-40	

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

Product Identifier: Durlon® 9200

SDS No.: 0019

Date of Preparation:

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do not use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance White.

Product Identifier: Durlon® 9200

SDS No.: 0019

Date of Preparation:

Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Product Identifier: Durlon® 9200

SDS No.: 0019

Date of Preparation:

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Ingestion

Not harmful.

Aspiration Hazard

No information was located.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer.

Carcinogenicity

Not classifiable as a carcinogen to humans.

Reproductive Toxicity

Development of Offspring

This product is not known to cause reproductive or developmental effects.

Germ Cell Mutagenicity

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product Identifier: Durlon® 9200

SDS No.: 0019

Date of Preparation:

Page 04 of 05

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL. Not listed on the NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Last Revision March 07, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® 9200

SDS No.: 0019

Page 05 of 05

Date of Preparation:

Durlon® 9400

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® 9400
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 260°C (500°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0048
Date of Preparation	May 31, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Polytetrafluoroethylene	9002-84-0	70-80		PTFE
Coke (petroleum), calcined	64743-05-1	20-30		Carbon Powder

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Product Identifier: Durlon® 9400 - Ver. 1
Date of Preparation: May 31, 2017
Date of Last Revision:

SDS No.: 0048

Page 01 of 05

If in eyes: may cause mild irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Black.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Hazardous Decomposition Products

Thermal decomposition of product above 300°C (572°F), can create Carbonyl fluoride, which combines with air and moisture and hydrolyses to Hydrogen Fluoride and Carbon Dioxide. Other PTFE degradation products include; perfluoroisobutylene, tetrafluoroethylene, hexafluoropropylene, carbon monoxide and trifluoromethane.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Product Identifier: Durlon® 9400 - Ver. 1

Date of Preparation: May 31, 2017

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Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Ingestion

Not harmful.

Aspiration Hazard

No information was located.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer.

Carcinogenicity

Not classifiable as a carcinogen to humans.

Reproductive Toxicity**Development of Offspring**

This product is not known to cause reproductive or developmental effects.

Germ Cell Mutagenicity

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product Identifier: Durlon® 9400 - Ver. 1

Date of Preparation: May 31, 2017

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Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL. Not listed on the NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 2** **Flammability - 1** **Instability - 0**

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation May 31, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® 9400 - Ver. 1

SDS No.: 0048

Date of Preparation: May 31, 2017

Date of Last Revision:

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Durlon® 9600, Durlon® Joint Sealant

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® 9600, Durlon® Joint Sealant
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 316°C (600°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0039
Date of Preparation	May 31, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Polytetrafluoroethylene	9002-84-0	100		

Notes

For Durlon® Joint Sealant, PSA is not considered as a hazardous material in normal use as defined in 29 CFR 1910.1200 and is composed of less than 10% of the end product.

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do not use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material. See section 4 for further information.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	White.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Product Identifier:	Durlon® 9600, Durlon® Joint Sealant - Ver. 1
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Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Ingestion

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Product Identifier: Durlon® 9600, Durlon® Joint Sealant - Ver. 1
Date of Preparation: May 31, 2017
Date of Last Revision: May 31, 2017

SDS No.: 0039

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Canada

WHMIS 1988 Classification

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation May 31, 2017

Date of Last Revision May 31, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® 9600, Durlon® Joint Sealant - Ver. 1
Date of Preparation: May 31, 2017
Date of Last Revision: May 31, 2017

SDS No.: 0039

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Durlon® Flexible Graphite

SECTION 1. IDENTIFICATION

Product Identifier Durlon® Flexible Graphite
Product Family Semi-Metallic
Manufacturer Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0041

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Graphite	7727-42-5	>95		
Crystalline Silica	14808-60-7	<0.8		

Notes

Product grades: FGS95, FGL316, FGT316 & FGM316 available in sheets, rolls or gaskets.

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Do not breathe dust. If exposed to high levels of dust, remove to fresh air. Rinse water and clear throat. Blow nose to clear dust.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.

Ingestion

Give large quantities of water. Get medical advice or attention if you feel unwell or are concerned.

Immediate Medical Attention and Special Treatment**Special Instructions**

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Specific Hazards Arising from the Product

Compositions of by-products from the result of fire will vary depending on the specific conditions. Hazardous gases and vapour include dense smoke and carbon monoxide. There may be others unknown to us.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing devices and protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary. Place spilled material (dust) in a container for disposal. Dispose of all wastes in accordance with federal, provincial, state or local laws.

Environmental Precautions

No special precautions are necessary. It is good practice to prevent releases into the environment.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Dust should be gathered by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Do not dry sweep or blow dust with compressed air. Graphite dusts are electrically conductive and accumulation of dust may cause shorting of electric circuits and switches. Personnel involved with handling this product should be wearing appropriate personal protective equipment as outlined in section 8.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Graphite	5 mg/m ³					

US ACGIH Threshold Limit Values

Graphite (CAS 7782-42-5)

TWA - 2 mg/m³, respirable fraction

Crystalline Silica (CAS 14808-60-7)

TWA - 0.025 mg/m³, respirable fraction

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Protective gloves are recommended when handling.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Black powder.
Odour	Not applicable
Melting Point/Freezing Point	Not applicable (melting); Not applicable (freezing)
Vapour Pressure	Not applicable
Relative Density (water = 1)	0.8 - 1.8
Solubility	Insoluble in water
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Conditions to Avoid

Avoid contact with highly concentrated acids. Dust is combustible, avoid sources of ignition and strong oxidizing agents. This product should not be used in oxidizing environments.

Incompatible Materials

Oxidizing agents (e.g. peroxides), reducing agents (e.g. hydroquinone).

Hazardous Decomposition Products

By-products from the result of a fire will vary depending on the specific conditions. Hazardous gases/vapours may include dense smoke and carbon monoxide. There may be others unknown to us.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Acute Toxicity

LD50 (Oral) >10,000 mg/kg (Rat)

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

Prolonged and repeated overexposure to dust can lead to pneumoconiosis. Prolonged exposure is associated with lung cancer. Crystalline silica: Overexposure to the respirable dust of crystalline silica (quartz or cristobalite, less than or equal to 5 microns in size) may lead to silicosis in humans, which is a progressive and irreversible lung disease.

Carcinogenicity

(Crystalline Silica) Has been classified by IARC, NTP and ACGIH as a known human carcinogen and suspected human carcinogen respectively.

SECTION 12. ECOLOGICAL INFORMATION

Product Identifier: Durlon® Flexible Graphite - Ver. 1
Date of Preparation: May 31, 2017
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Ecotoxicity

No information was located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate. Product is insoluble in water.

Mobility in Soil

No information was located.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations**

None known.

Canada**WHMIS 1988 Classification**

Not a WHMIS controlled product.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not available.

CEPA - National Pollutant Release Inventory (NPRI)

Not available.

USA**Toxic Substances Control Act (TSCA) Section 8(b)**

Not regulated.

SECTION 16. OTHER INFORMATION**NFPA Rating**

Health - 0

Instability - 0

SDS Prepared By

Triangle Fluid Controls Ltd.

Phone No.

613-968-1100

Date of Preparation

May 31, 2017

Disclaimer

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Product Identifier: Durlon® Flexible Graphite - Ver. 1

SDS No.: 0041

Date of Preparation: May 31, 2017

Date of Last Revision:

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Durlon® HT1000

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® HT1000
Product Family	Compressed Non Asbestos
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 1000°C (1832°F).
Manufacturer	Durabla Canada Ltd., 293 University Avenue PO Box 696, Belleville, ON
Supplier Identifier	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0042
Date of Preparation	May 31, 2017

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients.

Notes

Product grades: S90, L316 or T316 available in sheets, rolls or cut gaskets.

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.
If eye irritation persists, get medical advice or attention.

Ingestion

Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

If irritation occurs or persists from any route of exposure, discontinue use immediately and consult physician. Bring Safety Data Sheet for physician consultation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water mist, foam, dry chemical or carbon dioxide (CO₂). Alcohol resistant foams (ATC type) are preferred.

Specific Hazards Arising from the Product

Not sensitive to static discharge.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing apparatus and protective clothing must be worn in case of fire. If possible, prevent runoff from entering storm sewers, water bodies or other environmentally sensitive areas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Place spilled material (dust) in a container for disposal. Dispose of all waste according to federal, state, provincial or local laws.

Environmental Precautions

No special precautions are necessary.

Other Information

Dispose in accordance with section 8 and 13.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

No special handling precautions are necessary. It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

Store in a cool, dry place away from direct sunlight to maximize shelf life.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

Appropriate Engineering Controls

General ventilation is usually adequate. If dust or fumes are generated during use, use local exhaust in combination with general ventilation as necessary to remove fumes/dust from the worker's breathing zone and to ensure exposures do not exceed applicable limits.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Not required, if used as directed. Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed. Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Brown - green.

Odour Odourless

Product Identifier: Durlon® HT1000 - Ver. 1

Date of Preparation: May 31, 2017

Date of Last Revision:

SDS No.: 0042

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pH	Not applicable
Melting Point/Freezing Point	Not available (melting)
Initial Boiling Point/Range	Not available
Evaporation Rate	Not applicable
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.7 - 1.9
Solubility	Insoluble in water
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Maximum transport temperature of 30°C (86°F). Higher temperatures may change the material properties (e.g. flexibility, stickiness).

Conditions to Avoid

None known.

Incompatible Materials

None known.

Hazardous Decomposition Products

In the cause of thermal decomposition at temperatures above 250°C (482°F), toxic gases and vapours may occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Contact with this product may irritate exposed skin and non-irritating skin eyes, but it is recommended to wash the skin after use.

Reproductive Toxicity

Development of Offspring

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No specific data available for this product; however this product is not biodegradable.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

Not known.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

Product Identifier: Durlon® HT1000 - Ver. 1

Date of Preparation: May 31, 2017

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SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

None known.

Canada

WHMIS 1988 Classification

Not a WHMIS controlled product.

CEPA - National Pollutant Release Inventory (NPRI)

No components of this product are listed as CEPA priority substances.

Custom Regulatory 1

A Chemical Safety Assessment has not been carried out.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation May 31, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Product Identifier: Durlon® HT1000 - Ver. 1

SDS No.: 0042

Date of Preparation: May 31, 2017

Date of Last Revision:

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Durlon® Spiral Wound Gasket - ETG

SECTION 1. IDENTIFICATION

Product Identifier Durlon® Spiral Wound Gasket - ETG
Product Family Semi-Metallic
Manufacturer Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0056

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Graphite	7727-42-5			

Notes

Spiral Wound Gasket with Phlogopite Mica and Graphite Filler.
Guide Ring Material (If Existing): Carbon steel or stainless steel
Inner Ring Material (If Existing): Stainless Steel

Winding Material: Graphite with Stainless Steel

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Do not breathe dust. If exposed to high levels of dust, remove to fresh air. Rinse water and clear throat. Blow nose to clear dust.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.

Ingestion

Give large quantities of water. Get medical advice or attention if you feel unwell or are concerned.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Specific Hazards Arising from the Product

Compositions of by-products from the result of fire will vary depending on the specific conditions. Hazardous gases and vapour include dense smoke and carbon monoxide. There may be others unknown to us.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing devices and protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary. Place spilled material (dust) in a container for disposal. Dispose of all wastes in accordance with federal, provincial, state or local laws.

Environmental Precautions

No special precautions are necessary. It is good practice to prevent releases into the environment.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Dust should be gathered by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Do not dry sweep or blow dust with compressed air. Graphite dusts are electrically conductive and accumulation of dust may cause shorting of electric circuits and switches. Personnel involved with handling this product should be wearing appropriate personal protective equipment as outlined in section 8.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Graphite	5 mg/m ³					

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Protective gloves are recommended when handling.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Odour Not applicable

Melting Point/Freezing Point Not applicable (melting); Not applicable (freezing)

Product Identifier: Durlon® Spiral Wound Gasket - ETG - Ver. 1

SDS No.: 0056

Date of Preparation:

Date of Last Revision:

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Vapour Pressure	Not applicable
Relative Density (water = 1)	0.8 - 1.8
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Conditions to Avoid

Avoid contact with highly concentrated acids.

Incompatible Materials

Oxidizing agents (e.g. peroxides).

Hazardous Decomposition Products

By-products from the result of a fire will vary depending on the specific conditions. Hazardous gases/vapours may include dense smoke and carbon monoxide. There may be others unknown to us.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate. Product is insoluble in water.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

None known.

Canada

WHMIS 1988 Classification

Not a WHMIS controlled product.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not available.

CEPA - National Pollutant Release Inventory (NPRI)

Not available.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

Durlon® Spiral Wound Gasket - Flexible Graphite Filled

SECTION 1. IDENTIFICATION

Product Identifier Durlon® Spiral Wound Gasket - Flexible Graphite Filled
Product Family Semi-Metallic
Manufacturer Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No. Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No. 0030

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Graphite	7727-42-5			

Notes

Spiral Wound Gasket with Graphite Filler.
Guide Ring Material (If Existing): Carbon steel or stainless steel
Inner Ring Material (If Existing): Stainless Steel
Winding Material: Graphite with Stainless Steel

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Do not breathe dust. If exposed to high levels of dust, remove to fresh air. Rinse water and clear throat. Blow nose to clear dust.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.

Ingestion

Give large quantities of water. Get medical advice or attention if you feel unwell or are concerned.

SECTION 5. FIRE-FIGHTING MEASURES

Product Identifier: Durlon® Spiral Wound Gasket - Flexible Graphite Filled - Ver. 1
Date of Preparation: March 20, 2017
Date of Last Revision:

SDS No.: 0030

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Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Specific Hazards Arising from the Product

Compositions of by-products from the result of fire will vary depending on the specific conditions. Hazardous gases and vapour include dense smoke and carbon monoxide. There may be others unknown to us.

Special Protective Equipment and Precautions for Fire-fighters

Self-contained breathing devices and protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary. Place spilled material (dust) in a container for disposal. Dispose of all wastes in accordance with federal, provincial, state or local laws.

Environmental Precautions

No special precautions are necessary. It is good practice to prevent releases into the environment.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Dust should be gathered by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Do not dry sweep or blow dust with compressed air. Graphite dusts are electrically conductive and accumulation of dust may cause shorting of electric circuits and switches. Personnel involved with handling this product should be wearing appropriate personal protective equipment as outlined in section 8.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Graphite	5 mg/m ³					

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Protective gloves are recommended when handling.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Odour Not applicable

Melting Point/Freezing Point Not applicable (melting); Not applicable (freezing)

Product Identifier: Durlon® Spiral Wound Gasket - Flexible Graphite Filled - Ver. 1

SDS No.: 0030

Date of Preparation: March 20, 2017

Date of Last Revision:

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Vapour Pressure	Not applicable
Relative Density (water = 1)	0.8 - 1.8
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Conditions to Avoid

Avoid contact with highly concentrated acids.

Incompatible Materials

Oxidizing agents (e.g. peroxides).

Hazardous Decomposition Products

By-products from the result of a fire will vary depending on the specific conditions. Hazardous gases/vapours may include dense smoke and carbon monoxide. There may be others unknown to us.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate. Product is insoluble in water.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Product Identifier: Durlon® Spiral Wound Gasket - Flexible Graphite Filled - Ver. 1
Date of Preparation: March 20, 2017
Date of Last Revision:

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Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

None known.

Canada

WHMIS 1988 Classification

Not a WHMIS controlled product.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not available.

CEPA - National Pollutant Release Inventory (NPRI)

Not available.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Preparation March 20, 2017

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Product Identifier: Durlon® Spiral Wound Gasket - Flexible Graphite Filled - Ver. 1

SDS No.: 0030

Date of Preparation: March 20, 2017

Date of Last Revision:

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Durlon® Spiral Wound Gasket - PTFE Filler

SECTION 1. IDENTIFICATION

Product Identifier Durlon® Spiral Wound Gasket - PTFE Filler
Product Family Semi-Metallic
Restrictions on Use Maximum service temperature should not exceed 260°C (500°F).
Manufacturer Triangle Fluid Controls Ltd., 399 College Street East, Belleville, ON, K8N5S7, Canada, Chett Norton, 613-968-1100, 8am-5pm EST, www.trianglefluid.com
Emergency Phone No. Chett Norton, 613-968-1100, 8am-5pm EST
Date of Preparation July 12, 2018

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Polytetrafluoroethylene	9002-84-0	>20		

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.

Ingestion

Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour. In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for toxic gases or vapours. Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created from these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Wear gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the occupational exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	White.
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Solubility	Not applicable in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)

Product Identifier: Durlon® Spiral Wound Gasket - PTFE Filler - Ver. 1
Date of Preparation: July 12, 2018
Date of Last Revision:

SDS No.: 0003

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Other Information

Physical State

Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium allow), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300C/572F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated and or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not an irritant, but washing the skin after use or contact is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air and consult physician if symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough of approx 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed with PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of "polymer fume fever". Due to complicating factors, such as mixed exposures and smoking history, these findings are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

Respiratory and/or Skin Sensitization

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician if symptoms persist. In general, high concentrations of low toxicity dusts may cause coughing and mild,

temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Carcinogenicity

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large amounts of frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity

Studies were not located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

None known.

Canada

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

SECTION 16. OTHER INFORMATION

NFPA Rating	Flammability - 1
	Based on Polytetrafluoroethylene
SDS Prepared By	CN
Phone No.	613-968-1100

Product Identifier:	Durlon® Spiral Wound Gasket - PTFE Filler - Ver. 1
Date of Preparation:	July 12, 2018
Date of Last Revision:	

SDS No.: 0003

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Date of Preparation July 12, 2018

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Product Identifier: Durlon® Spiral Wound Gasket - PTFE Filler - Ver. 1
Date of Preparation: July 12, 2018
Date of Last Revision:

SDS No.: 0003

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Durlon® Virgin PTFE

SECTION 1. IDENTIFICATION

Product Identifier	Durlon® Virgin PTFE
Product Family	PTFE
Recommended Use	Gasket Material.
Restrictions on Use	Maximum service temperature should not exceed 260°C (500°F).
Manufacturer	Triangle Fluid Controls Ltd., 399 College St E., Belleville, Ontario, K8N 5S7, Chett Norton, 613-968-1100, www.trianglefluid.com
Emergency Phone No.	Triangle Fluid Controls Ltd., 613-968-1100, 8 am - 5pm EST
SDS No.	0040

SECTION 2. HAZARD IDENTIFICATION

Classification

Not classified under any hazard class.

Label Elements

Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Polytetrafluoroethylene	9002-84-0	100		

Notes

This document covers both virgin material grades: mechanical (reprocessed) and skived material.

SECTION 4. FIRST-AID MEASURES

First-aid Measures**Inhalation**

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

The product is not likely to be hazardous by skin contact, but washing the skin after use is advisable.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Not applicable (gas). Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Treat symptomatically. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes: may cause mild irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog, foam, dry chemical powder or carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do not use a water stream to extinguish, as this could spread the fire.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: toxic chemicals; corrosive hydrogen fluoride. Hydrogen fluoride fumes released during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling waste from fire.

Special Protective Equipment and Precautions for Fire-fighters

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Self-contained breathing devices and protective clothing must be worn in case of fire. No unusual fire or explosion hazards noted.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid sanding, grinding or other abrasive actions. Dust created for these actions must be captured by wet wiping or with a HEPA filtration equipped vacuum. Do not dry sweep, or blow dust with blower or compressed air. Avoid breathing dust and contamination of cigarettes or tobacco with dust from this material.

Environmental Precautions

No special precautions are necessary.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

No special requirements for storage area. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

If material is being handled when hot, use heat resistant gloves.

Respiratory Protection

Use particulate filter respirator for specific particulate concentrations exceeding the Occupational Exposure Limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Product Identifier: Durlon® Virgin PTFE - Ver. 1

SDS No.: 0040

Date of Preparation:

Date of Last Revision: March 07, 2017

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Appearance	White.
Odour	Not applicable
Odour Threshold	Not applicable
Melting Point/Freezing Point	327 °C (621 °F) (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not available
Solubility	Insoluble in water
Auto-ignition Temperature	520 - 560 °C (968 - 1040 °F)
Decomposition Temperature	260 °C (500 °F)
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 260.0 °C (500.0 °F)

Incompatible Materials

Molten alkali metals (e.g. sodium, potassium or sodium-potassium alloy), fluorine, chlorine trifluoride, strong fluorinating agents and sodium hydroxide (reacts above 300°C/572°F).

Hazardous Decomposition Products

Hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned. Amounts will vary depending on the specific conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; ingestion.

Skin Corrosion/Irritation

Not a skin irritant, but washing the skin after use is advisable.

Serious Eye Damage/Irritation

Rinse with water. Get medical attention if irritation is observed.

STOT (Specific Target Organ Toxicity) - Single Exposure

Product Identifier: Durlon® Virgin PTFE - Ver. 1

SDS No.: 0040

Date of Preparation:

Date of Last Revision: March 07, 2017

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Inhalation

Not likely to be hazardous by inhalation. If exposed to fumes from ignition or combustion of product, move to fresh air. Consult physician symptoms persist.

In general, high concentrations of low toxicity dusts may cause coughing and mild, temporary irritation. Many cases of flu-like disorder called "polymer fume fever", a temporary flu-like illness with chills, fever and sometimes cough, of approx. 24 hours duration may arise. These symptoms have been reported following exposure to chemicals formed when PTFE is heated to a temperature of 300°C/572°F. Many cases of "polymer flu fever" have been reported in literature of persistent pulmonary effects in individuals, especially smokers who have repeated episodes of polymer fume fever. Due to complicating factors, such as mixed exposures and smoking history, these finds are uncertain. Small amounts of hydrogen fluoride, carbon tetrafluoride, carbonyl fluoride and tetrafluoroethylene monomer can form if PTFE is overheated or burned.

Skin Absorption

Not harmful.

Ingestion

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not include the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse effects such as ozone depletion, photochemical ozone creation, endocrine disruption or global warming potential are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable municipal, provincial and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

Product Identifier: Durlon® Virgin PTFE - Ver. 1

SDS No.: 0040

Date of Preparation:

Date of Last Revision: March 07, 2017

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

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Triangle Fluid Controls Ltd.

Phone No. 613-968-1100

Date of Last Revision March 07, 2017

Disclaimer The information provided in this SDS is correct and to the best of our knowledge at the date of its publication. The information provided is intended only as a guidance for safe handling, transportation, storage, use and disposal and is not considered a warranty or quality specification. This SDS is intended for the material specified and may not be valid for the material used in any other combination or process unless specified in the text.

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