



Viton™ FreeFlow™ Z100 Series

Version 3.0

Revision Date 03/23/2016

Ref. 150000002272

This SDS adheres to the standards and regulatory requirements of Canada and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Viton™ FreeFlow™ Z100 Series
Product Grade/Type : Z100, Z110, SAR-7462, SAR-7468
MSDS Number : 150000002272
Product Use : Process aid for polyolefins
Manufacturer : THE CHEMOURS CANADA COMPANY
PO BOX 118
STREETSVILLE ON L5M 2B7
Product Information : 1-844-773-CHEM
Medical Emergency : 1-866-595-1473 (24 hours)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

May cause skin and eye irritation in susceptible persons.

Potential Health Effects

Skin

Polyethylene oxide : May cause skin irritation.
May cause: Discomfort, itching, redness, or swelling.

Talc (Mg₃H₂(SiO₃)₄) : May cause skin irritation.
(asbestos-free) May cause: Discomfort, itching, redness, or swelling.

Eyes

Polyethylene oxide : May cause eye irritation.
May cause: Tearing, redness, or discomfort.



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Talc (Mg₃H₂(SiO₃)₄) (asbestos-free) : May cause eye irritation.
May cause: Tearing, redness, or discomfort.

Barium sulfate : May cause eye irritation. May cause:, Tearing, redness, or discomfort..

Inhalation

Polyvinylidene fluoride/hexafluoropropene : Inhalation of decomposition products from overheating may cause lung irritation or shortness of breath. Fluid in the lungs (pulmonary oedema) with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin (symptoms might be delayed)

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Polyvinylidene fluoride/hexafluoropropene	9011-17-0	>50%
Polyethylene oxide	25322-68-3	<50 %
Talc (Mg ₃ H ₂ (SiO ₃) ₄) (asbestos-free)	14807-96-6	<5 %
Limestone	1317-65-3	<5 %
Barium sulfate	7727-43-7	<1 %



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SECTION 4. FIRST AID MEASURES

- Skin contact : Wash off with soap and water. Cool skin rapidly with cold water after contact with hot polymer. Do not peel polymer from the skin. Consult a physician if necessary.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.
- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Consult a physician.
- Ingestion : If victim is conscious: Drink water as a precaution. Consult a physician.
- General advice : If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

- Flammable Properties
 - Flash point : no data available
- Fire and Explosion Hazard : Burning produces noxious and toxic fumes.
- Suitable extinguishing media : Carbon dioxide (CO2), Foam, Water, Dry chemical
- Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. Wear Neoprene gloves during cleaning up work after a fluoroelastomer fire. Evacuate personnel to safe areas. Do not allow run-off from fire fighting to enter drains or water courses. The solid polymer can only be burned with difficulty.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel) : Ventilate the area. Refer to protective measures listed in sections 7 and 8.

Spill Cleanup : Shovel into suitable container for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

Accidental Release Measures : Try to prevent the material from entering drains or water courses.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Protect from contamination. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. In case of insufficient ventilation, wear suitable respiratory equipment.
Do not breathe dust. Do not breathe fumes evolved from hot polymer.
General precaution for all plastics and elastomers: Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing. When using do not eat, drink or smoke.

Handling (Physical Aspects) : General precaution for all plastics and elastomers: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Avoid dust formation.

Storage : Keep in a dry, cool and well-ventilated place. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Temperatures greater than 40°C may cause irreversible agglomeration of the powder.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use only in area provided with appropriate exhaust ventilation.



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Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Use NIOSH approved respiratory protection.

Hand protection : Material: Nitrile rubber
Glove thickness: 0.38 mm
Wearing time: 8 h
Additional protection: Skin should be washed after contact.

Eye protection : Safety glasses with side-shields

Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.
If VITON™ is used above 315°C the surface may contain hydrogen fluoride condensate which may cause severe burns. In this case wear neoprene gloves.

Exposure Guidelines

Exposure Limit Values

None established.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : powder
Color : white, off-white
Odor : mild
Density : 1.75 - 1.90 g/cm³
Water solubility : insoluble

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Processing temperature > 230 °C (> 446 °F)
Avoid heating for prolonged periods above the recommended upper



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processing limit.

- Incompatibility : Powdered metals Finely divided aluminium, Alkali metals, Alkaline earth metals, Strong oxidizing agents
- Hazardous decomposition products : Hazardous decomposition products: Hydrogen fluoride, Carbonyl fluoride, Fluorinated hydrocarbons, Aldehydes, Organic acids, Alcohols
- Hazardous reactions : During drying, cleaning and moulding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat.

SECTION 11. TOXICOLOGICAL INFORMATION

- Viton™ FreeFlow™ Z100 Series
 - Further information : No data is available on the product itself.
 - Polyvinylidene fluoride/hexafluoropropene
 - Oral LD50 : > 5,000 mg/kg , Rat
 - Inhalation : The substance is a polymer and is not expected to produce toxic effects.
 - Skin irritation : No skin irritation, Rabbit
 - Skin sensitization : Does not cause skin sensitisation., Guinea pig
 - Repeated dose toxicity : Oral
Rat

No toxicologically significant effects were found.

Inhalation
Rat

No toxicologically significant effects were found.
 - Carcinogenicity : Not classifiable as a human carcinogen.
The substance is a polymer and is not expected to produce toxic effects.



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- Mutagenicity : Animal testing did not show any mutagenic effects.
The substance is a polymer and is not expected to produce toxic effects.
- Reproductive toxicity : No toxicity to reproduction
No effects on or via lactation
The substance is a polymer and is not expected to produce toxic effects.
- Teratogenicity : The substance is a polymer and is not expected to produce toxic effects.

Polyethylene oxide

- Dermal LD50 : > 10,000 mg/kg , Rabbit
- Oral LD50 : 32,000 - 44,700 mg/kg , Rat
- Inhalation 6 h ALC - Approximate Lethal Concentration : > 2.5 mg/l , Rat
- Skin irritation : No skin irritation, animals (unspecified species)
- Eye irritation : slight irritation, Rabbit
- Skin sensitization : Testing on human volunteers did not demonstrate sensitization properties., human

Talc (Mg₃H₂(SiO₃)₄) (asbestos-free)

- Oral LD50 : > 5,000 mg/kg , Rat
- Inhalation 4 h LC50 : > 22 mg/l , Rat
- Skin irritation : No skin irritation, human
- Eye irritation : No eye irritation, Rabbit
- Repeated dose toxicity : Inhalation
Rat

No toxicologically significant effects were found.



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- Carcinogenicity : Not classifiable as a human carcinogen.
Overall weight of evidence indicates that the substance is not carcinogenic.
- Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Teratogenicity : Animal testing showed no developmental toxicity.
- Limestone
- Dermal LD50 : > 2,000 mg/kg , Rat
Information given is based on data obtained from similar substances.
- Oral LD50 : > 2,000 mg/kg , Rat
Information given is based on data obtained from similar substances.
- Inhalation 4 h LC50 : > 3 mg/l , Rat
Information given is based on data obtained from similar substances.
- Skin irritation : No skin irritation, Rabbit
Information given is based on data obtained from similar substances.
- Eye irritation : No eye irritation, Rabbit
Information given is based on data obtained from similar substances.
- Skin sensitization : Does not cause skin sensitisation., Mouse
Information given is based on data obtained from similar substances.
- Repeated dose toxicity : Oral
Rat

No toxicologically significant effects were found., Information given is based on data obtained from similar substances.
- Carcinogenicity : Not classifiable as a human carcinogen.
- Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Information given is based on data obtained from similar substances.



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Reproductive toxicity : No toxicity to reproduction
Information given is based on data obtained from similar substances.

Teratogenicity : Animal testing showed no developmental toxicity.
Information given is based on data obtained from similar substances.

Barium sulfate

Dermal LD50 : > 2,000 mg/kg , Rat
Information given is based on data obtained from similar substances.

Oral LD50 : 307,000 mg/kg , Rat

Skin irritation : No skin irritation, human
Information given is based on data obtained from similar substances.

Eye irritation : No eye irritation, Rabbit

Skin sensitization : Does not cause skin sensitisation., Mouse
Information given is based on data obtained from similar substances.

Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.
Information given is based on data obtained from similar substances.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Evidence suggests this substance does not cause genetic damage in cultured mammalian cells.
Evidence suggests this substance does not cause genetic damage in cultured bacterial cells.
Information given is based on data obtained from similar substances.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity



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Polyvinylidene fluoride/hexafluoropropene
48 h EC50

: Daphnia magna (Water flea) > 100 mg/l

Polyethylene oxide
96 h LC50

: Oncorhynchus mykiss (rainbow trout) 20,000 mg/l

Talc (Mg₃H₂(SiO₃)₄) (asbestos-free)
96 h LC50

: Danio rerio (zebra fish) > 100 mg/l

Limestone

96 h LC50

: Oncorhynchus mykiss (rainbow trout) > 100 mg/l OECD Test Guideline 203
Information given is based on data obtained from similar substances.

72 h EC50

: Desmodesmus subspicatus (green algae) > 14 mg/l OECD Test Guideline 201
Information given is based on data obtained from similar substances.

48 h EC50

: Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202
Information given is based on data obtained from similar substances.

Barium sulfate

96 h LC50

: Danio rerio (zebra fish) 152 mg/l OECD Test Guideline 203
Information given is based on data obtained from similar substances.

72 h ErC50

: Pseudokirchneriella subcapitata (green algae) > 100 mg/l OECD Test Guideline 201
Information given is based on data obtained from similar substances.

48 h EC50

: Daphnia magna (Water flea) 145 mg/l
Information given is based on data obtained from similar substances.

Environmental Fate

Talc (Mg₃H₂(SiO₃)₄) (asbestos-free)
Biodegradability

: Biodegradable
Not applicable

Additional ecological information

: We have no quantitative data concerning the ecological effects of this product.



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SECTION 13. DISPOSAL CONSIDERATIONS

- Waste Disposal : If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations. Incinerate only in incinerators capable of scrubbing out acidic combustion products.
- Environmental Hazards : Offer rinsed packaging material to local recycling facilities. If recycling is not practicable, dispose of in compliance with local regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

- DSL : All components of this product are on the Canadian DSL
- WHMIS Classification : - Not Rated

SECTION 16. OTHER INFORMATION

- MSDS preparation date : 03/23/2016
- Restrictions for use : Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours



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