

# MATERIAL SAFETY DATA SHEET\_MAX-SHIELD F5382B

(Prepared in accordance with OSHA Hazard communication standard 29 CFR 1910.1200 Section (g)(c)(1))

## SECTION 1. PRODUCT IDENTIFICATION AND MANUFACTURER

**Product Name:** Max-Shield F5382B  
**Product Use:** Electrical Conduct Fluorosilicone rubber for manufacturing of dispensing gaskets  
**Manufacturer:** TennVac Inc.  
**Address:** 9F-3, No. 31-1, Lane 169, Kangning Street, Xizhi District, New Taipei City, Taiwan  
**Telephone:** +886 26951213-126

## SECTION 2. COMPOSITION INFORMATION

Single or Mixture	Mixture	
Component Name	CAS Number	Wt %
Perfluoropolyether	---	<35
Nickel/graphite powder	7440-02-0/ 7782-42-5	>60
Perfluoro compounds	---	>5.0

## SECTION 3. HAZARD IDENTIFICATION

**Hazards Classification:** None  
**Fire And Explosion:** No flammable and explosive hazard. Contact with acidic, basic or oxidizing materials generates flammable and explosive hydrogen gas.

### Potential Health Effect

**Skin Contact:** May cause slight skin irritation, but no significant effect  
**Eyes Contact:** May cause slight eyes irritation  
**Ingestion:** No information is available  
**Inhalation:** Not applicable.

But toxic and corrosive fluorine-compounds may be liberated during processing above 200 degree C, or from smoking tobacco or cigarettes contaminated with this product.

## SECTION 4. FIRST AID MEASURES

**Skin Contact:** Remove product from skin with dry cloth or towel, and wash exposed area with detergent.  
**Eyes Contact:** Immediately flush with plenty of water for at least 15 minutes and promptly call a physician.  
**Ingestion:** Wash out mouth with water provided person is conscious person. Call a physician immediately.  
**Inhalation:** Not applicable.  
If inhaled by decomposed gas, remove to fresh air and call a physician.

## SECTION 5. FIRE FIGHTING MEASURES

**Flash Point(method used):** Not applicable

**Flammable Limits:** Lower: Not measured

Upper: Not measured

**Extinguishing Media:** Foam, dry chemical, carbon dioxide or fine water spray

**Special Firefighting Procedure:** Wear appropriate protective equipment, including approved respirator.

**Unusual Fire and Explosion Hazard:** When heating above 200 degree C or in fire conditions, decomposition products from materials may be formed including hydrogen fluoride, carbonyl fluoride, carbon monoxide and low molecular weight fluorocarbons.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### STEP TO BE TAKEN IN CASE MATERIAL IS RELEASE OR SPILLED:

Contain the spill or leak. Scrape up with cardboard or rag and place in container, in such a case pay attention to generation of hydrogen gas by contaminants.

## SECTION 7. HANDLING AND STORAGE

### PRECAUTION TO BE TAKEN IN HANDLING AND STORAGE:

Keep container closed when not in use.

Vent the container properly to eliminate internal pressure.

Store in a cool place.

Do not lay the container on its side.

Avoid contact with eyes and prolonged or repeated skin contact.

Do not smoke cigarettes which have come into contact with this product.

Keep out of reach of children.

### INFORMATION ABOUT THE EMPTIED CONTAINER

Do not re-use this container.

Keep away from heat, spark and flame.

Do not puncture or cut this container, and do not weld on or near this container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

Respiratory Protection(Specify Type)	Required when this product is heated above 200 degree C
Ventilation	None should be needed
Local Exhaust	Recommended
Mechanical(General)	Adequate ventilation system
Special	Not required
Other	Not required
Protective Gloves	Plastic film
Eye Protection	Safety glasses
Protective Clothing Or Equipment	Eyewash equipment

Work/Hygienic Practices

Keep away from heat and flam.

Avoid contact with eyes and prolonged or repeated skin contact. Avoid contact with acidic, basic or oxidizing materials. Wash hands after handling.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	Not applicable
Vapor Pressure	Negligible (25 degrees C)
Vapor Density(AIR-1)	Not determined
Density	1.88 (23 degrees C)
Melting Point	Not determined
Evaporation Rate	Negligible (BUTYL ACETATE=1)
Solubility In Water	Not soluble
Solubility	---
Appearance(Color)	Grey
Appearance(Form)	Paste
Odor	Odorless
Dynamic Viscosity	---

## SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Condition To Avoid	Contact with acidic, basic or oxidizing materials. Heating above 200 degrees C.
Hazardous Polymerization	Will not occur
Materials To Avoid	Acidic, basic or oxidizing materials.
Hazardous Decomposition or By-product	Acidic, basic or oxidizing materials can cause hydrogen gas. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Fluorine compounds. Formaldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Special Hazard Information on Components:

Skin irritation	Skin-rabbit: Nonirritating [Fluorinated organosiloxane]
eyes irritation	Nonirritating [Fluorinated organosiloxane]
Sensitization	Negative (Guinea pig) [Fluorinated organosiloxane]
Acute toxicity (LD50)	LD50 (Oral/Rat): >500 mg/kg LD50 (Dermal/Rat): >2500 mg/kg [Fluorinated organosiloxane]
Acute toxicity (LC50)	LC50 (Inhalation/Rat): >5000 mg/m <sup>3</sup> /4hr [Fluorinated organosiloxane]

Subacute toxicity	NOAEL: 400mg /kg/28 days, In a repeated-dose oral toxicity study in Wistar rats there were no clinical signs or effects on body weight or food consumption. Various changes in hematology, urinalysis and blood chemistry parameters were observed in the middle and/or high dose groups (males and/or females). An absolute decrease in testis weight was reported for high dose male animals; histopathological findings were also reported for the testis. [Fluorinated organosiloxane]
Chronic toxicity	NOAEL: 400mg /kg/28 days, In a repeated-dose oral toxicity study in Wistar rats there were no clinical signs or effects on body weight or food consumption. Various changes in hematology, urinalysis and blood chemistry parameters were observed in the middle and/or high dose groups (males and/or females). An absolute decrease in testis weight was reported for high dose male animals; histopathological findings were also reported for the testis. [Fluorinated organosiloxane]
Carcinogenicity	NTP: Not listed, IARC: Not listed, OSHA Regulated: Not listed
Mutagenicity	Ames Test: Negative, Chromosome analysis: Negative [Fluorinated organosiloxane]
Other information	None

## SECTION 12. ECOLOGICAL INFORMATION

Biodegradation	Not readily degradable (12% (Max.) degradation after 28 days) [Fluorinated organosiloxane]
Bioaccumulation	Log Pow: 10.52 [Fluorinated organosiloxane]
Aquatic Toxicity:	EC50 (72 hr): >100mg/l (Algae), EC50 (48 hr): >100mg/l (Daphnia magna), EC50 (96 hr): >100mg/l (Zebra fish) [Fluorinated organosiloxane]
Other Information	None

## SECTION 13. DISPOSAL CONSIDERATIONS

Residue shall be incinerated in an EPA approved Facility.

Material shall also incinerated in an approved Facility.

Material and residue will not be released to water.

Material and residue will only be incinerated at temperatures that will destroy the fluorinated chemicals of concern.

Empty containers shall be triple rinsed then disposed of in a lawful manner.

Obey all local, state and federal regarding disposal of chemical wastes.

## SECTION 14. TRANSPORT INFORMATION

(IMO INFORMATION)

ID No.	None
Classification And Class	None
Packaging Group	None
Proper Shipping Name	None
Technical Shipping Name	None
Marine Pollutant	None
(DOT INFORMATION)	
ID No.	None
Hazard Class	None
Packaging Group	None
Proper Shipping Name	None
Technical Shipping Name	None
Hazard Substance(S) Name/(CAS No.) Content % Rq:	Not applicable

## SECTION 15. REGULATORY INFORMATION

**TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:** Listed on the TSCA inventory.

This product should be used in compliance with Low Volume Exemption under TSCA.

## SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986(SARA)TITLE III SECTION 313 SUPPLIER NOTIFICATION :

THIS REGULATION REQUIRES SUBMISSION OF ANNUAL REPORT OF TOXIC CHEMICALS THAT APPEAR IN SECTION 313 IF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THE MATERIAL. THE

### TOXIC CHEMICALS CONTAINED IN THIS PRODUCT ARE :

CHEMICAL NAME /(CAS NO) AND CONTENTS – NONE

### CALIFORNIA PROPOSITION 65 :

THIS REGULATION REQUIRES A WARNING FOR CALIFORNIA PROPOSITION 65 CHEMICAL (S) UNDER THE STATUTE. THE CALIFORNIA PROPOSITION 65 CHEMICAL (S) CONTAINED IN THIS PRODUCT ARE :

CHEMICAL NAME /(CAS NO) AND CONTENTS—NONE

## SECTION 16. OTHER INFORMATION

For Industrial use only. This material safety data sheet is offered solely for your information, consideration and investigation. The data described in the MSDS consist of data on literature, our acquired data and analogical inference by data of similar chemical substance or product.