

**Material Safety
Data Sheet**

Industrial Chemical Products Division



Document Number: 10-4033-6

3M Center
St. Paul, Minnesota 55144-1000
612/733-1110

Duns No.: 00-617-3082

Trade Name

FX-9613 DYNAMAR Brand Polymer Processing Additive

Chemical Family

Fluorinated Elastomer

3M I.D. Number

98-0211-3503-7 (33 lb. unit)

1. Ingredients

	CAS #	%	Exposure Limits
Fluoroelastomer	9011-17-0	~90	None (5)
Talc	14807-96-6	~6	2 mg/m3 (1)
Partitioning Agent	471-34-1	~2	10 mg/m3 (1)
Partitioning Agent	7631-86-9	~2	10 mg/m3 (1)

Exposure limit data source: 1) ACGIH Threshold Limit Values, 2) Federal OSHA Permissible Exposure Limit, 3) 3M Exposure Guidelines, 4) Chemical Manufacturer Recommended Guidelines and 5) None established.

2. Physical Data

Boiling Point	NA	Solubility in Water	Negligible
Vapor Pressure	NA	Specific Gravity (H ₂ O = 1)	~1.8
Vapor Density (Air = 1)	NA	Percent Volatile	NA
Evaporation Rate	NA	pH	NA

Appearance and Odor

White rubbery, granular solid.

3. Fire and Explosion Hazard Data

Flash Point (Test Method)

Setaflash CC >600 F

Flammable Limits: LEL = NA

UEL = NA

Extinguishing Media

Water, Foam, CO₂, Dry Chemical

Special Fire Fighting Procedures

None Known

Unusual Fire and Explosion Hazards

Toxic by-products, including HF, may be formed.

4. Environmental Information

Spill Response

Observe precautions from other sections. Collect spilled material.

Recommended Disposal

Dispose of waste product in a sanitary landfill. Disposal alternative: Mix with flammable material and incinerate in an industrial or commercial facility. Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: None

Environmental Data

1. Not determined.

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Trade Name **FX-9613 DYNAMAR Brand Polymer Processing Additive**

5. Health Hazard Data

Eye Contact

Low potential to cause irritation of eyes.

Skin Contact

The product has a low potential for causing irritation of the skin during intended use and handling. Animal studies indicate that fluoroelastomers are non-irritating to the skin of the albino rabbit.

Inhalation

Low hazard at temperatures below the thermal decomposition point. At >660 F, the FX-9613 begins to break down emitting hydrogen fluoride, HF, and short chain fluorocarbons which are highly irritating and toxic. OSHA permissible exposure limits: talc 20 million particles per cubic foot of air.

Ingestion

Considered practically non-toxic orally.

Suggested First Aid

EYE CONTACT: Immediately flush with plenty of water. Call a physician.

SKIN CONTACT: Wash affected area with soap and water.

INHALATION: If symptoms occur, remove person to fresh air. If symptoms continue, call a physician.

INGESTION: Give two glasses of water. Call a physician or Poison Control Center.

Activity Data

Stability	Unstable	☒	Stable
	Conditions To Avoid Not Applicable		
Incompatibility	Materials To Avoid Al or Mg powder & high shear/temperature conditions.		
	May Occur	☒	Will Not Occur
Hazardous Polymerization	Conditions To Avoid Not Applicable		

Hazardous Decomposition Products

Thermal decomposition may produce toxic materials including HF.

7. Special Protection Information

Eye Protection

Safety Glasses

Skin Protection

Rubber Gloves

Ventilation

General mechanical ventilation is adequate below decomposition temperature.

Respiratory and Special Protection

If decomposition occurs, an air supplied respirator should be worn.

8. Precautionary Information

Avoid breathing the decomposition products. If processing at or above the decomposition temperature use local exhaust ventilation. Store below 100 F. Prevent moisture contamination. Do not smoke while handling.

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M A T E R I A L S A F E T Y D A T A S H E E T PAGE: 1
DOW CHEMICAL U.S.A. MIDLAND MICHIGAN 48640 EMERGENCY PHONE: 517-636-4400

EFFECTIVE DATE: 03 MAR 80

PRODUCT CODE: 37968

PRODUCT NAME: FR-300-BA

MSD: 0460

INGREDIENTS (TYPICAL VALUES-NOT SPECIFICATIONS) : % :

DECABROMODIPHENYL OXIDE : >90 :

OTHER BROMINATED DIPHENYL OXIDES : <10 :

SECTION 1

PHYSICAL DATA

BOILING POINT: DECOMPOSES : SOL. IN WATER: 20 PPB

VAP PRESS: < 1 MMHG @ 250C : SP. GRAVITY: 3.0

VAP DENSITY (AIR=1): : % VOLATILE BY VOL: 0

APPEARANCE AND ODOR: WHITE TO OFF-WHITE POWDER.

MELTING RANGE 563F-581F, 295-305C

SECTION 2

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NONE : FLAMMABLE LIMITS (STP IN AIR)

METHOD USED: ---- : LFL: NOT DETER. UFL: NOT DETER.

EXTINGUISHING MEDIA: ----

SPECIAL FIRE FIGHTING EQUIPMENT AND HAZARDS: HYDROGEN BROMIDE AND
POSSIBLY OTHER TOXIC GASES MAY BE GIVEN OFF AT ELEVATED TEMPERATURES;
PRESSURE DEMAND SELF-CONTAINED BREATHING APPARATUS MAY BE NECESSARY.

SECTION 3

REACTIVITY DATA

STABILITY: MATERIAL MAY SLOWLY DECOMPOSE AT TEMPERATURES GREATER
THAN 300C TO GIVE TOXIC GASES. (MELTING POINT APPROX. 300C).

INCOMPATIBILITY: OXIDIZING MATERIAL.

HAZARDOUS DECOMPOSITION PRODUCTS: CHIEFLY HYDROGEN BROMIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION 4

SPILL, LEAK, AND DISPOSAL PROCEDURES

ACTION TO TAKE FOR SPILLS (USE APPROPRIATE SAFETY EQUIPMENT): USE DUST
RESPIRATOR, RUBBER GLOVES, GLASSES WITH SIDE SHIELDS DURING CLEAN
UP. SHOVEL INTO PAKS.

DISPOSAL METHOD: DISPOSAL OF EMPTY PAKS, POLYMER CONTAINING FR 300 BA
LOST IN INDUSTRIAL OPERATIONS (DUST COLLECTIONS, ETC.) SHOULD BE
DISPOSED OF AT LOCALLY APPROVED LANDFILL SITES. CARRIER DAMAGED
PAKS: MATERIAL SHOULD BE TRANSFERRED TO GOOD PAKS AND RETURNED
TO THE DOW CHEMICAL COMPANY.

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EFFECTIVE DATE: 03 MAR 80
PRODUCT (CONT'D): FR-300-BA

PRODUCT CODE: 37958
MSF: 0460

SECTION 5 HEALTH HAZARD DATA

INGESTION: LOW SINGLE DOSE ORAL TOXICITY; LD50 (RAT) GREATER THAN 2000 MG/KG.
EYE CONTACT: MILD TRANSIENT IRRITATION; NO CORNEAL INJURY LIKELY.
SKIN CONTACT: UP TO MILD IRRITATION.
SKIN ABSORPTION: NOT LIKELY TO BE ABSORBED IN ACUTELY TOXIC AMOUNTS.
INHALATION: DOW INDUSTRIAL HYGIENE GUIDE IS 5 MG/M3 . DUSTS
MAY BE HAZARDOUS FROM REPEATED DAILY INHALATION.
EFFECTS OF OVEREXPOSURE: NOT AVAILABLE.

SECTION 6 FIRST AID--NOTE TO PHYSICIAN

FIRST AID PROCEDURES:

EYES: IRRIGATION OF THE EYE IMMEDIATELY WITH WATER FOR FIVE MINUTES IS GOOD SAFETY PRACTICE.
SKIN: CONTACT WILL PROBABLY CAUSE NO MORE THAN IRRITATION. WASH OFF IN FLOWING WATER OR SHOWER. WASH CLOTHING BEFORE REUSE.
INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT MEDICAL PERSONNEL.
INGESTION: IF SWALLOWED, INDUCE VOMITING IMMEDIATELY BY GIVING TWO GLASSES OF WATER AND STICKING FINGER DOWN THROAT. CALL A PHYSICIAN.

NOTE TO PHYSICIAN:

EYES: MAY CAUSE MILD IRRITATION. STAIN FOR EVIDENCE OF CORNEAL INJURY.
SKIN: MAY CAUSE MILD IRRITATION. TREAT AS ANY CONTACT DERMATITIS.
RESPIRATORY: NO EFFECT EXPECTED.
SYSTEMIC: ANIMAL STUDIES SHOW WITH EXCESSIVE ORAL ADMINISTRATION KIDNEY AND LIVER CHANGES AND THYROID HYPERPLASIA CAN BE DEMONSTRATED. HUMAN EFFECTS NOT ESTABLISHED. NO SPECIFIC ANTIDOTE. TREATMENT BASED ON THE SOUND JUDGMENT OF THE PHYSICIAN AND THE INDIVIDUAL REACTIONS OF THE PATIENT.

SECTION 7 SPECIAL HANDLING INFORMATION

VENTILATION: RECOMMEND CONTROL OF DUSTS TO SUGGESTED GUIDE. LOCAL EXHAUST DESIRED AT THOSE POINTS WHERE DUSTS MAY BE GENERATED.
RESPIRATORY PROTECTION: NONE NORMALLY NEEDED. IF REQUIRED, USE AN APPROVED DUST RESPIRATOR.
PROTECTIVE CLOTHING: CLEAN BODY-COVERING CLOTHING.
EYE PROTECTION: SAFETY GLASSES WITHOUT SIDE SHIELDS. WASHING FACILITIES NEAR WORK AREA.

SECTION 8 SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: PRACTICE REASONABLE CARE TO AVOID SKIN AND EYE CONTACT. PREVENT BREATHING DUSTS IF GENERATED. STORE PAKS IN DRY AREA.

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M A T E R I A L S A F E T Y D A T A S H E E T P A G E : 7
DOW CHEMICAL U.S.A. MIDLAND MICHIGAN 48640 EMERGENCY PHONE: 817-635-4400

EFFECTIVE DATE: 03/24/80

PRODUCT CODE: 37968

PRODUCT (CONT'D): FF-300-BA

MSD: 0450

SECTION 8 SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION (CONTINUED)

ADDITIONAL INFORMATION: REVISIONS 3/3/80 -- SECTIONS 1, 2 AND 5.

LAST PAGE

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CONSULT THE DOW CHEMICAL COMPANY FOR FURTHER INFORMATION.

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