# EXHIBIT B

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION SEP 9 1983

PROCESS LETTER

SECTION I

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

A two-part addition cured fluorosilicone molding compound for electrical connectors this system provides better resistance to tension set. The lower viscosity of this compound -- when mixed 1:1 -- increases productivity while reducing flash. The system provides a working shelf life up to 10 days (at RT) when mixed

This is a platinum catalyzed composition, and as such, the compound and all of the components -- of the formulation -- must be prepared under a nitrogen atmosphere. Inert gas is not suitable; it can contain trace amounts of carbon monoxide which is a known poison for platinum - contact of either the compound or any of the components with said gas might adversely offset the performance of this material.

| | |
|---|---|
| Product Responsibility | RFP Product Services Section |
| Process Responsibility | FRS Manufacturing Engineering |
| Release Responsibility | FRS Quality Control |

9/7/83
Manager - RFPD Products Services Section

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Evans
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K. SCHMIEDER

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 2

COMPOSITION, TESTS AND SPECIFICATIONS

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

COMPOSITION BASE

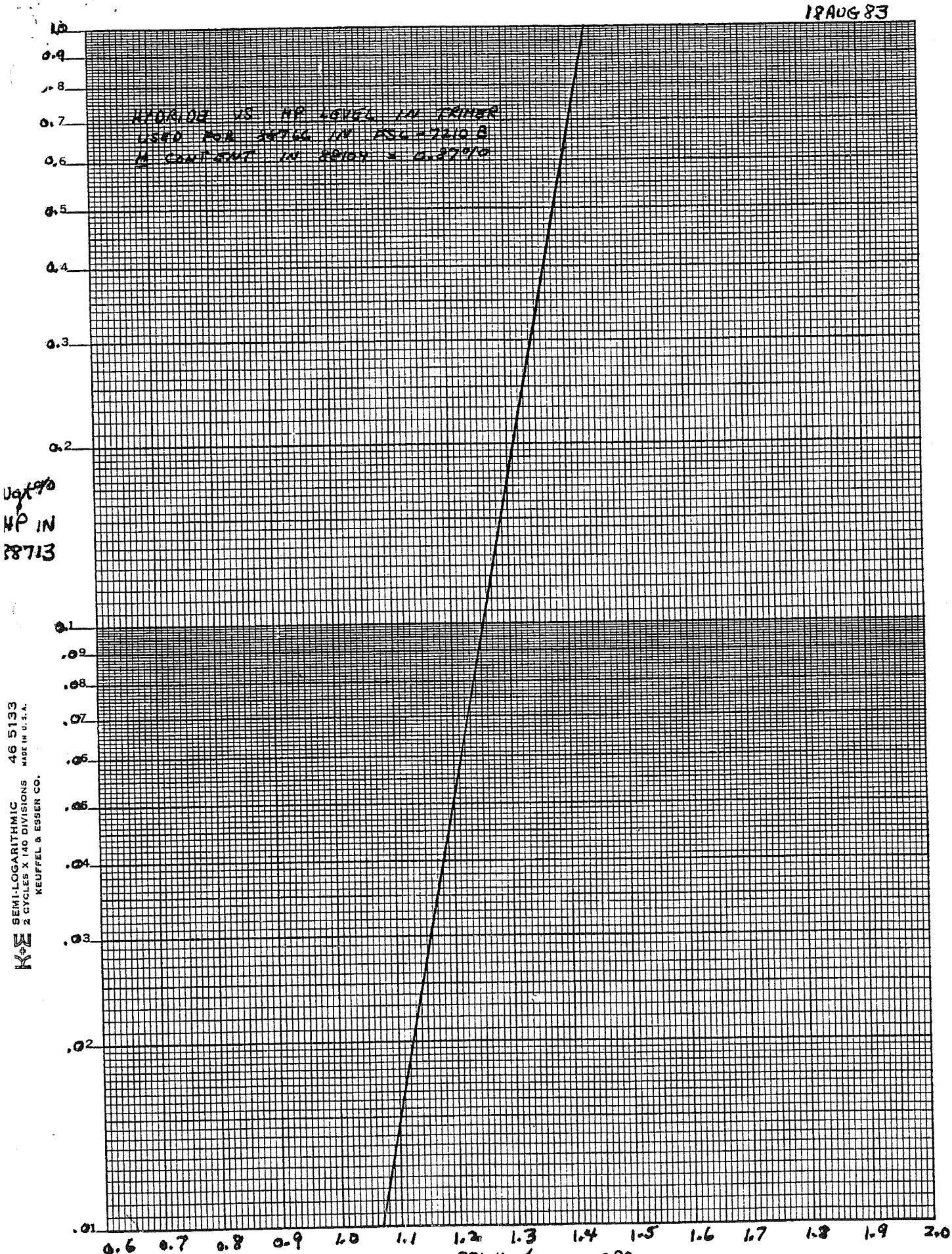
| Material | Specification | Lbs/100 lbs. Product | % |
|---|---|---|---|
| Vinyl terminated polymethyl 3,3,3-trifluoropropylsiloxane copolymer | GE 88766 | 100 | 67.07 |
| Silazane treated Fumed Silica | GE 88318 | 16.0 | 10.73 |
| Silazane treated Zeothix 95 | GE 88625 | 21.0 | 14.08 |
| 10 Micron Minusil | WERMI 6230 | 5 | 3.35 |
| 1/2M-1/2 Vi Chainstopped 50m % FS copolymer fluid | GE 88610 | 4 | 2.68 |
| Fluorosilicone Silanol Fluid | GE 88658* | 3.1<br>149.1 | 2.09<br>99.99 |

*can be replaced with 1.5-2.0 parts 88629

| A- Portion | | Parts | |
|---|---|---|---|
| -- | Base | 100 | (149.1) |
| Platinum Catalyst | GE 88034 | .056 | (.084) |
| Diallylmaleate | WERMI 6861 | .06 | (.090) |

| B- Portion | | Parts | | |
|---|---|---|---|---|
| -- | Base | 100 | (149.1) | 96.54 |
| Color Masterbatch | GE 88656 | 2.28 | (3.4) | 2.20 |
| Hydride Crosslinker | GE 88104 | 1.30<br>103.58 | (1.94)** | 1.26 |

** Amt only valid for 88104 having 0.87 wgt% hydrogen and the 88766 with an HP level of 0.18 wgt%. See attached curve for 88104 level versus HP content of 88766.


18AUG83
1.0
0.9
.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
.09
.08
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1.0
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2.0
PARTS 88104 /100 @ CPD
SEMI-LOGARITHMIC
2 CYCLES X 140 DIVISIONS
KEUFFEL & ESSER CO.
MADE IN U.S.A.
46 5133

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 2

COMPOSITION, TESTS AND SPECIFICATIONS (Continued)

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

PRODUCT TESTS & SPECIFICATIONS

Unmixed

| Test No. | Property | Specification |
|---|---|---|
| A-7 | Color, Part A | Off-white |
| A-7 | Color, Part B | Reddish Brown |
| **Mixed Properties** | | |
| A-7 | Color | Reddish Brown |
| E-2 | Appearance | Devoid of lumps and foreign particles |
| P-3D | Working Shelf Life at 75°F, days to 10MM cps. | 4 - 10 days |
| U-43 | Penetration, MMX10$^{-1}$ | 22 - 30 |
| P-3 | Brookfield viscosity, 2 min. reading, No. 7 Spindle, 10 RPM, 77°F, cps. | 850M - 1,500M |
| C-1097 | Rheometer, Model 100, 1°ARC, 400°F (Ea 204°C) 25 range, 6" Motor | |
| | T-90, seconds | 0.25 - .85 min. |
| | Maximum reading at 3 min. | 40 - 65 |
| S-47 | RTV Sheet Preparation Equal amounts of A&B | 5"/350°F and PB 8 hrs/400°F |
| E-3 | Shore A | 45 ± 5 |

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 2

COMPOSITION, TESTS AND SPECIFICATIONS

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

PRODUCT TESTS & SPECIFICATIONS (Continued)

Mixed Properties (continued)

| Test No. | Property | Specification |
|---|---|---|
| E-1 | Tensile strength, psi | 600 (min) |
| E-1 | Elongation | 320 (min) |
| E-19 | Tear, Strength, psi | 80 (min) |
| P-15 | Specific gravity | 1.30 ± 0.03 |
| E-11 | Compression Set, 22 hrs/350°F | 35 (max) |
| E-73 | Shrinkage | 4.0 ± 0.05 |
| U-11A | Bashore | 30 (min) |
| L-20A | Dielectric Strength, on 0.075 inch ASTM sheet | 400 volts/mil (min.) |

R C Atwood 8/5/83
Process Engineer

E. Robert Evans
Product Chemist

L. R. Browning 9/7/83
Manager-Quality Control

9/7/83
Manager-RFPD Product Service Section

R C Atwood 8/5/83
Manager-PS&E Manufacturing Engr.

9/7/83
Manager-Research & Program Development

C E Jones 08/05/83
Manager-Production

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 3

PROCEDURE

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

Properties of Inputs and Products

| Material | Specification | Mol. Wgt. | B.P. °C/ATM | Density |
|---|---|---|---|---|
| Vinyl terminated, 40m% methyl-3,3,3-trifluoro-propylsiloxane-polydimethyl-siloxane copolymer | GE 88766 | $\overline{Ca}$ 44-47M($\overline{M}_w$) | - | 1.119 - 1.131 |
| Silazane treated fumed silica | GE 88318 | - | - | 0.20 - 0.25 (bulk values) |
| Silazane treated Zeothix 95 | GE 88625 | - | - | 0.160 - 0.165 (bulk values) |
| Drakenfeld black/red iron oxide masterbatch | GE 88656 | - | - | - |
| Hydride crosslinker | GE 88104 | - | - | 1.19 - 1.21 |
| Platinum Catalyst | GE 88034 | - | - | 1.017 |
| Fluorosilicone Silanol Fluid | GE 88629 | - | - | 1.29 - 1.33 |
| 1/2M - 1/2Vi chain stopped 50m% fluorosilicone co-polymer fluid | GE 88610 | 8-10M | - | 1.55 - 1.182 |
| 10 Micron Minusil | WERMI 6230 | - | - | - |
| Diallylmaleate | WERMI 6861 | 196 | 260° | 1.077 |

Introduction

A two-component fluorosilicone molding compound for electrical connectors which provides good electrical properties and displays good processability. This compound also demonstrates good resistance to both tension set and compression set. The separate components display good shelf life with a viscosity of 1-2MM upon standing for 90 days at RT (77°F) - when mixed, a working shelf life -- time to 10MM cps viscosity -- of 10 days at RT is observed.

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 3

PROCEDURE (Continued)

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

Introduction (continued)

Diallylmaleate (inhibitor) has a tendency to polymerize on standing - any material which appears to be hazy, high in viscosity (syrup like) or a semi-solid should not be used.

Equipment:

A stainless steel (SS316) vessel which is capable of being agitated should be used - Doughmixer or change-can mixer. The reactor is cleaned prior to using via an approved solvent -- capable of cleaning the vessel - followed by a wipe-down then nitrogen purge dried.

BASE

Process:

To a clean vessel charge all the 88766 then add the 10 micron Minusil. Complete the compounding of the base accordingly.

- Add the 88318 in three equal additions - mixing well between each increment to insure massing. Blade scraping may be required.
- Add the 88625 in three equal additions - mixing well between additions.
- Mix the batch for one hour, scrape walls and blades of mixer if necessary.
- Add the 88610, and when dispersed, heat batch to 120-135°C under nitrogen purge for 2 hours.
- Cool down mixture to 50°C then add the 88629, after the material is thoroughly dispersed, cool batch temperature down to less than 50°C and drop the batch.
- Filter batch thru 75 micron spiral wound filter.

PART A

To a clean and dry vessel add the base material then add the 88034; mix thoroughly for 30 minutes.

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 3

PROCEDURE (Continued)

Product No.: FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

PART A (Continued)

- Add the diallylmaleate and mix thoroughly for 30 minutes then cool to less than 50°C.
- Drop the A portion out, package, and label.

Process

PART B

To a clean and dry vessel charge the base material.

- Add the 88656 and mix thoroughly for 30 minutes.
- Cool the batch to less than 40°C and add the hydride crosslinker -- 88104 -- and mix thoroughly for 30 minutes to one hour while cooling.
- Drop the batch, package and label part B.

R.C. Atwood 8/5/83 — E. Robert Evans

Process Engineer — Chemist

GENERAL ELECTRIC COMPANY

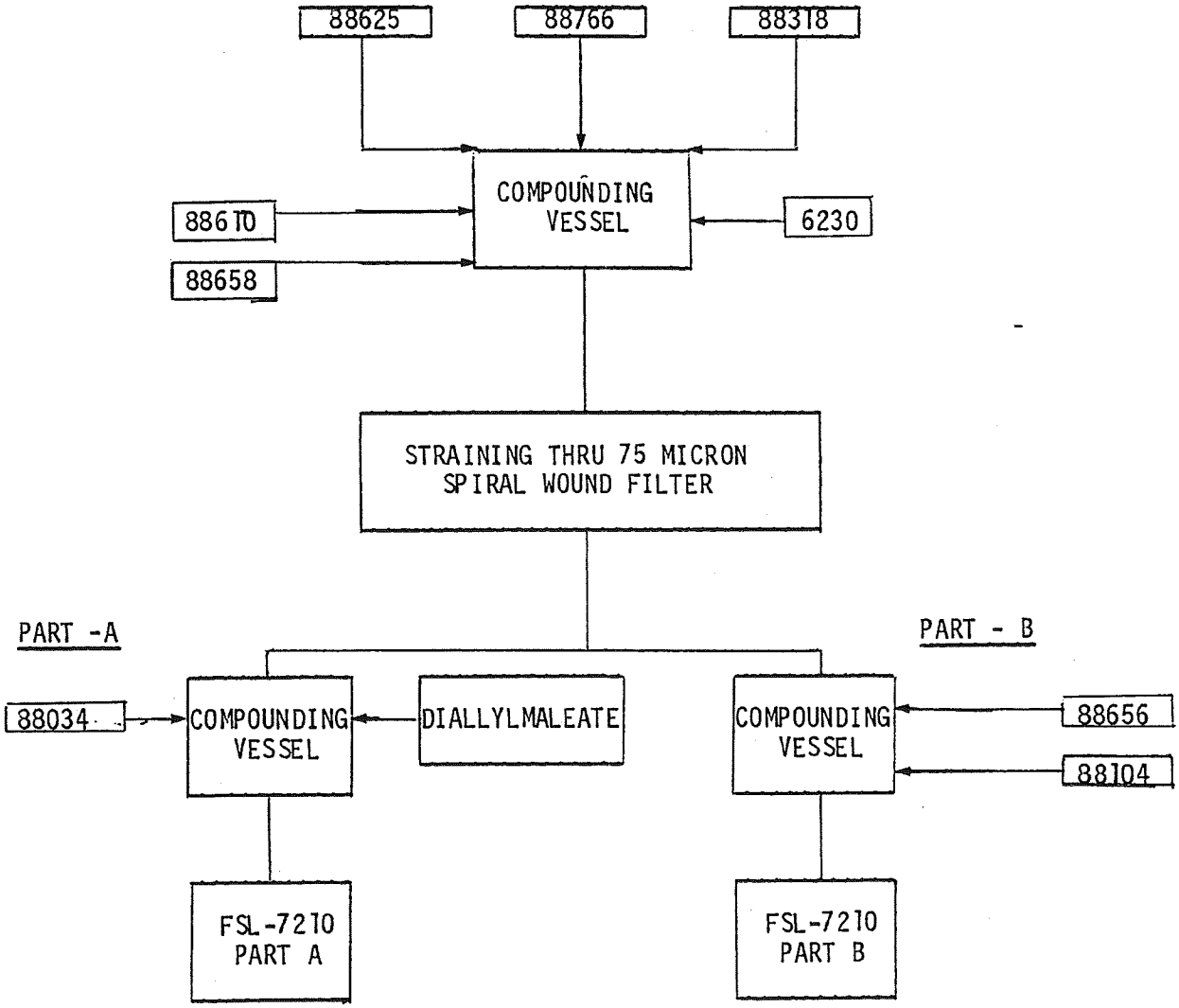
SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 4

FLOW SHEET

Product No. FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983




R.C. Atwood 8/5/83
Process Engineer

E. Robert Evans
Chemist

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 5

Product No. FSL-7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compounding
Date: September 7, 1983

Manufactured under RPMs 42133, 42134 and 42135, April 5, 1982.

Process Letter, Issue No. 1, 18 August 82.

E. Robert Evans
Chemist

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 6

Product FSL-7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

## PATENT STATUS

To the best of my knowledge, the subject Process Letter and the product derived therefrom (circle appropriate response):

1. Does/does not — contain patented subject matter as found in U. S. Patent _____.

2. (Does)/does not — contain subject matter contained in an application for U. S. Patent (i.e. patent pending).

3. (Is)/is not — the subject of an SPBD patent disclosure letter (60 SI- 449).

I understand that in order to avoid statutory penalties for the mismarking of products under 35 U.S.C. 292, Division Patent Counsel shall be notified of all changes to the subject Process Letter.

E. Robert Evans
Process Development Chemist

Manager-RFPD Product Service Section

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 7

MATERIALS HANDLING & SAFETY

Product No. FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

40m% Polymethyl - 3,3,3-trifluoropropylsiloxy polydimethylsiloxane copolymer, 88766

The copolymer should be handled with care. The physiological properties are unknown; but the material is suspected of having biological and/or physiological activity. Until information is available concerning its character, avoid all topical contact. If contact is made, emulsifyu the material with liquid detergent; then rinse with copious amounts of water. All contaminated clothing should be discarded.

1/2M 1/2Vi Terminated, 50m% Polymethyl-3,3,3-trifluoropropylsiloxy polydimethyl-siloxane copolymer, 88610

A copolymer plasticizer fluid which is suspected of having biological and/or physiological activity. Avoid ingestion or topical contact; if contact is made, first emulsify with liquid detergent then rinse with copious amounts of water.

Silazane treated MS-7 Fumed Silica, 88318

The filler is considered to be non-hazardous, however, inhalation of large quantities of airborne particles (dust) should be avoided. A face mask should be worn when adding material from containers to DMX to reduce the tendency for respiratory irritation.

Silazane treated Zeothix 95, 88625

The filler is considered to be non-hazardous, however, it can be somewhat dusty when dealing with bulk quantities. A face mask should be worn when loading DMX to reduce the tendency for respiratory irritation.

Diallylmaleate, WERMI 6861

An inhibitor for platinum which should be stored in a sealed container at temperatures below 80°F. The material is moderately toxic and has an acute oral LD50 of 1040 mg/Kg in rats; the acute dermal LD50 is 500 mg/Kg for rabbits which is toxic. The material causes both eye and skin irritation; care should also be taken to avoid inhalation of the fumes (b.p. = 260°C). In the event of eye or skin contact, flush with water for at least 15 minutes then seek help from a physician. In the event of a spill, absorb on inert material, e.g., floor dry, sawdust, or sand for incineration (98-7091-30) with vapor scrubbers.

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section 7

MATERIALS HANDLING & SAFETY (CONTINUED)

Product No. FSL 7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

Hydride Crosslinker, 88104

A low viscosity fluid which is flammable, but non toxic. A reactive material which must be kept away from open flames and caustic solutions. Scrap material or cleaned up spills should be disposed of in accordance with 22-7035-30.

Fluorosilicone Hydrolyzate, 88658

A mixture of cyclics and linear silanol species, the toxicity of which is presently unknown. The material should be considered to be potentially hazardous, and care must be taken to avoid topical contact. The material should be first emulsified with a liquid detergent then rinsed thoroughly with water. All contaminated clothing should be discarded.

Platinum Catalyst, 88034

Alcoholic reaction product of chloroplatinic acid with 2-ethylhexanoic acid. The catalyst is considered to be non-hazardous, but flammable. Care should be taken to insure against contact with open flames.

E. Robert Evans
Process Chemist

GENERAL ELECTRIC COMPANY

SILICONE PRODUCTS BUSINESS DIVISION

PROCESS LETTER - Section

ENVIRONMENTAL IMPACT

Product No. FSL-7210
Issue No. 2

Two-Part Fluorosilicone
Molding Compound
Date: September 7, 1983

The effect of the individual parts or the final compound upon the environment is thought to be minimal. The compound does not have an appreciable vapor pressure, is insoluble in water, and has sufficient green strength to resist flow. Cleanup of spills can be facilitated thru the use of floordri or sand to absorb the somewhat sticky mess. All residues should be disposed of in accordance with the folllowing code P-7251-30.

E. Robert Evans
Process Chemist

R.C. Atwood 8/5/83
Process Engineer

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