

MAY 2 3 1994

# MATERIAL SAFETY DATA SHEET

MILES INC.

INDUSTRIAL CHEMICALS DIVISION

Mobay Road

Pittsburgh, PA 15205-9741 .

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

800-424-9300

DISTRICT OF COLUMBIA: 202-483-7616

NON-TRANSPORTATION

MILES EMERGENCY PHONE...: (412) 923-1800

MILES INFORMATION PHONE.: (800) 662-2927

PRODUCT IDENTIFICATION: I.

PRODUCT NAME..... Baysilone LSR 2070 Component B

PRODUCT CODE.....: \$463-0070

CHEMICAL FAMILY....: Silicone

CHEMICAL NAME.....: Mixture of vinyl-terminated polydimethylsiloxanes,

dimethylmethylhydrogensiloxane and organically modified

amorphous silica

FORMULA..... Mixture

II. HAZARDOUS INGREDIENTS:

INGREDIENT NAME

/CAS NUMBER

EXPOSURE LIMITS

CONCENTRATION (%)

Dimethylmethylhydrogensiloxane

68037-59-2

OSHA: Not Established

ACGIH: Not Established

Proprietary %

III. PHYSICAL PROPERTIES:

PHYSICAL FORM..... Paste

COLOR..... Translucent

ODOR..... Slight inherent odor

pH ..... Neutral

BOILING POINT..... (Initial): 338 F (170 C) @ 1013 mbar

MELTING/FREEZING POINT....: 61 F (16 C)

VISCOSITY..... (kinematic): Greater than 4200 mm2/s € 68 F (20 C)

SOLUBILITY IN WATER .....: Essentially insoluble

SPECIFIC GRAVITY ...... 1.12 @ 68 F (20 C)

BULK DENSITY ..... Not Established

VAPOR PRESSURE ..... 10 mbar @ 68 F (20 C);

31 mbar @ 122 F (50 C)

Product Code: S463-0070 Approval date: 05/09/94

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## IV. FIRE AND EXPLOSION DATA:

## V. HUMAN HEALTH DATA:

ROUTE(S) OF ENTRY.....: Eye Contact; Skin Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE EFFECTS OF EXPOSURE....: On the basis of animal toxicity data (see Section XII), we would expect this product to be moderately irritating to the eyes. non-irritating to the skin and to be essentially non-toxic by ingestion. Under ordinary handling and use, no adverse effects of overexposure have been reported. However, if subjected to unusually high processing temperatures, the resulting thermal decomposition products may be irritating to the eyes and respiratory tract. The filler contained in this product is thoroughly mixed as part of the paste. Therefore, exposure by inhalation is not expected.

CHRONIC EFFECTS OF EXPOSURE...: No applicable information was found concerning any adverse chronic human health effects.

OTHER EFFECTS OF EXPOSURE....: This product contains methylpolysiloxanes which can generate formaldehyde at temperatures above 150 C (302 F) in atmospheres which contain oxygen. Formaldehyde is an eye and respiratory irritant, a skin and respiratory sensitizer, and a potential cancer hazard. Exposures to formaldehyde are regulated by the Occupational Safety and Health Administration (OSHA) under 29 CFR part 1910.1048. Workplace exposure to formaldehyde should be evaluated when this product is used in high temperature processes [above 150 C (302 F)], to assess whether the actual airborne concentrations exceed any of the action levels defined in the OSHA Standard.

CARCINOGENICITY.....: The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE....: None known.

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## VI. EMERGENCY AND FIRST AID PROCEDURES:

FIRST AID FOR EYES.....: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

FIRST AID FOR SKIN.....: In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

FIRST AID FOR INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

FIRST AID FOR INGESTION .: If swallowed, call a physician.

## VII. EMPLOYEE PROTECTION RECOMMENDATIONS:

EYE PROTECTION REQUIREMENTS.....: Chemical safety goggles are recommended. SKIN PROTECTION REQUIREMENTS.....: Permeation resistant gloves and clothing are recommended to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

RESPIRATOR REQUIREMENTS.....: Under normal conditions of use, respiratory protection is not required. If under unusual circumstances dusting occurs, a NIOSH/MSHA approved respirator with dust pre-filter is recommended.

VENTILATION REQUIREMENTS.....: When this product is used in low temperature processes {below 150 C (302 F)}, special ventilation is not required. When this product is used in high temperature processes, ventilation must comply with 29 CFR part 1910.1048 (OSHA Formaldehyde Standard).

MONITORING....: When this product is used in high temperature processes {above 302 F (150 C)}, monitoring requirements must be in compliance with 29 CFR part 1910.1048 (OSHA Formaldehyde Standard).

ADDITIONAL PROTECTIVE MEASURES....: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

## VIII. REACTIVITY DATA:

STABILITY...... Under normal conditions of use and storage, the product is stable.

HAZARDOUS POLYMERIZATION ...: Will not occur.

INCOMPATIBILITIES.....: Sulphur Compounds (thicks, sulphides, sulphates, sulphites, thiorea); Rubber vulcanized with sulphur; Nitrogen Compounds (amines, amides, imides, azides); Plastic cured with amines; Material containing organic acids; Tin Compounds; Room Temperature Vulcanized (RTV)

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# EMERGENCY AND FIRST AID PROCEDURES:

FIRST AID FOR EYES.....: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation

FIRST AID FOR SKIN.....: In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

FIRST AID FOR INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

FIRST AID FOR INGESTION .: If swallowed, call a physician.

#### EMPLOYEE PROTECTION RECOMMENDATIONS: VII.

EYE PROTECTION REQUIREMENTS.....: Chemical safety goggles are recommended. SKIN PROTECTION REQUIREMENTS.....: Permeation resistant gloves and clothing are recommended to minimize skin contact. Employees should wash their hands and face before eating, drinking or using tobacco products.

RESPIRATOR REQUIREMENTS..... Under normal conditions of use, respiratory protection is not required. If under unusual circumstances dusting occurs, a NIOSH/MSHA approved respirator with dust pre-filter is recommended.

VENTILATION REQUIREMENTS..... When this product is used in low temperature processes {below 150 C (302 F)}, special ventilation is not required. When this product is used in high temperature processes, ventilation must comply with 29 CFR part 1910.1048 (OSHA Formaldehyde Standard).

MONITORING..... When this product is used in high temperature processes {above 302 F (150 C)}, monitoring requirements must be in compliance with 29 CFR part 1910.1048 (OSHA Formaldehyde Standard).

ADDITIONAL PROTECTIVE MEASURES.....: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

## VIII. REACTIVITY DATA:

STABILITY..... Under normal conditions of use and storage, the . product is stable.

HAZARDOUS POLYMERIZATION ...: Will not occur.

INCOMPATIBILITIES..... Sulphur Compounds (thiols, sulphides, sulphates, sulphites, thiorea); Rubber vulcanized with sulphur; Nitrogen Compounds (amines, amides, imides, azides); Plastic cured with amines; Material containing organic acids; Tin Compounds; Room Temperature Vulcanized (RTV)

Product Code: S462-0070 Approval date: 05/09/94

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# VIII. REACTIVITY DATA (Continued)

silicone rubbers catalyzed with metal salts, strong acids and alkaline solutions.

INSTABILITY CONDITIONS....: None known.

DECOMPOSITION TEMPERATURE..: No decomposition when used as directed.

DECOMPOSITION PRODUCTS....: Thermal decomposition may produce CO, CO2, oxides of silica and other potentially toxic fumes. If air is present and temperatures exceed 302 F (150 C), small amounts of formaldehyde may be formed through oxidative decomposition.

## IX. SPILL AND LEAK PROCEDURES:

SPILL OR LEAK PROCEDURES...: Utilize protective clothing and equipment.

Spills should be taken up with suitable absorbent and placed in containers.

Spill area can be washed with water. Collect wash water for approved disposal.

WASTE DISPOSAL METHOD.....: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## X. SPECIAL PRECAUTIONS & STORAGE DATA:

STORAGE TEMPERATURE (MIN/MAX): Ambient/104 F (40 C).

SHELF LIFE..... 12 months in tightly closed containers.

SPECIAL SENSITIVITY..... None known.

HANDLING/STORAGE PRECAUTIONS: Store in dry place, away from excessive heat, in original or similar waterproof containers. Reseal containers immediately after use. Avoid unnecessary contact. Protect from freezing. Product may become electrostatically charged during filling and transferring. Make sure equipment is properly grounded. Keep separate from foodstuffs.

## XI. SHIPPING INFORMATION:

TECHNICAL SHIPPING NAME..... Vinyl-terminated Polydimethylsiloxanes with

filler

FREIGHT CLASS BULK..... Chemicals, NOI

FREIGHT CLASS PACKAGE..... Chemicals, NOI (NMFC 60000)

PRODUCT LABEL..... Baysilone LSR 2070 Component A

## DOT (HM-181) (DOMESTIC SURFACE)

PROPER SHIPPING NAME..... None

HAZARD CLASS OR DIVISION .....: Non-Regulated .

Product Code: S462-0070 Approval date: 05/09/94 MSDS Page 4 Continued on next page

#### XI. SHIPPING INFORMATION (Continued)

## DOT (HM-181) (continued)

## IMO / IMDG CODE (OCEAN)

PROPER SHIPPING NAME..... None

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

## ICAO / IATA (AIR)

PROPER SHIPPING NAME..... None

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

#### XII. ANIMAL TOXICITY DATA:

## ACUTE TOXICITY

ORAL LD50..... Greater than 5000 mg/kg (Rat). (1) EYE EFFECTS...... Non-irritating to rabbit eyes. (1)

SKIN EFFECTS.....: Non-irritating to rabbit skin (24 hrs.). (1)

1 Toxicological tests on analogous products. Tests conducted at the Institute for Toxicology of Miles Inc.'s parent company.

#### XIII. FEDERAL REGULATORY INFORMATION:

OSHA STATUS..... This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS..... On TSCA Inventory

CERCLA REPORTABLE QUANTITY ..: None.

SARA TITLE III:

SECTION 302 EXTREMELY

HAZARDOUS SUBSTANCES ..: None.

**SECTION 311/312** 

HAZARD CATEGORIES....: Non-hazardous under Section 311/312

SECTION 313

TOXIC CHEMICALS.....: None.

RCRA STATUS..... If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

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#### XIV. OTHER REGULATORY INFORMATION:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

## COMPONENT NAME

/CAS NUMBER

CONCENTRATION

STATE CODE

Vinyl-terminated polydimethylsiloxane

68083-19-2

Proprietary 7

PA3. NJ4

Vinyl-terminated polydimethylmethylvinylsiloxane

68083-18-1

Proprietary %

PA3, NJ4

Organically modified amorphous silica\*

NJTSRN (31765300002)-7337P

Proprietary %

PA3, NJ4

NJ4 = New Jersey Other - included in 5 predominant ingredients > 1% NJTSRN = New Jersey Trade Secret Registry Number PA3 = Pennsylvania Non-hazardous present at 3% or greater.

## CALIFORNIA PROPOSITION 65

To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects.

## HASSACHUSETTS SUBSTANCE LIST (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. To the best of our knowledge, this product contains no substances at a level which could require reporting under the statute.

This component is bound in this product in a manner which presents no potential for exposure, therefore, this chemical is not considered in the hazard determination process.

#### XV. APPROVALS:

REASON FOR ISSUE..... Revise Sections V and VII.

PREPARED BY...... D. P. Kelly APPROVED BY..... J. M. Hostowy APPROVAL DATE..... 05/09/94 SUPERSEDES DATE..... 11/11/92

MSDS NUMBER..... 08727

Product Code: S462-0070 Approval date: 05/09/94

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# MAY 2 3 1994 MATERIAL SAFETY DATA SHEET

MILES INC. INDUSTRIAL CHEMICALS DIVISION Mobay Road Pittsburgh, PA 15205-9741

TRANSPORTATION EMERGENCY

CALL CHENTREC:

800-424-9300

DISTRICT OF COLUMBIA:

202-483-7616

NON-TRANSPORTATION

MILES EMERGENCY PHONE...: (412) 923-1800

HILES INFORMATION PHONE .: (800) 662-2927

PRODUCT IDENTIFICATION: I.

PRODUCT NAME..... Baysilone LSR 2070 Component A

PRODUCT CODE..... \$462-0070

CHEMICAL FAMILY....: Silicone

CHEMICAL NAME..... Mixture of vinyl-terminated polydimethylsiloxanes and

organically modified amorphous silica

FORMULA..... Mixture

II. HAZARDOUS INGREDIENTS:

INGREDIENT NAME

/CAS NUMBER

EXPOSURE LIMITS

CONCENTRATION (%)

This product contains no hazardous ingredients as defined under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

III. PHYSICAL PROPERTIES:

PHYSICAL FORM..... Paste

COLOR..... Translucent

ODOR..... Odorless pH .....: Neutral

BOILING POINT..... (Initial): 446 F (230 C) @ 1013 mbar

MELTING/FREEZING POINT....: 61 F (16 C)

VISCOSITY..... (kinematic): Greater than 4200 mm2/s € 68 F (20 C)

SOLUBILITY IN WATER .....: Essentially insoluble SPECIFIC GRAVITY ...... 1.13 @ 68 F (20 C) BULK DENSITY..... Not Established

VAPOR PRESSURE ...... 10 mbar @ 68 F (20 C);

31 mbar. @ 122 F (50 C)

Product Code: S462-0070 Approval date: 05/09/94

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A7-4

## VIII. REACTIVITY DATA (Continued)

silicone rubbers catalyzed with metal salts, strong acids and alkaline

INSTABILITY CONDITIONS....: Small amounts of hydrogen will be generated by contact with strong bases and acids.

DECOMPOSITION TEMPERATURE..: No decomposition when used as directed.

DECOMPOSITION PRODUCTS....: Thermal decomposition may produce CO, CO2, oxides of silica and other potentially toxic fumes. If air is present and temperatures exceed 302 F (150 C), small amounts of formaldehyde may be formed through oxidative decomposition.

## IX. SPILL AND LEAK PROCEDURES:

SPILL OR LEAK PROCEDURES...: Utilize protective clothing and equipment.

Spills should be taken up with suitable absorbent and placed in containers.

Spill area can be washed with water. Collect wash water for approved disposal.

WASTE DISPOSAL METHOD.....: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## X. SPECIAL PRECAUTIONS & STORAGE DATA:

STORAGE TEMPERATURE (MIN/MAX): Ambient/104 F (40 C).

SHELF LIFE..... 12 months in tightly closed containers.

SPECIAL SENSITIVITY..... None known.

HANDLING/STORAGE PRECAUTIONS: Store in dry place, away from excessive heat, in original or similar waterproof containers. Reseal containers immediately after use. Avoid unnecessary contact. Protect from freezing. Product may become electrostatically charged during filling and transferring. Make sure equipment is properly grounded. Keep separate from foodstuffs.

## XI. SHIPPING INFORMATION:

TECHNICAL SHIPPING NAME...... Vinyl-terminated Polydimethylsiloxanes with

filler

FREIGHT CLASS BULK..... Chemicals, NOI

FREIGHT CLASS PACKAGE.....: Chemicals, NOI (NMFC 60000)
PRODUCT LABEL...... Baysilone LSR 2070 Component B

## DOT (HH-181) (DOMESTIC SURFACE)

PROPER SHIPPING NAME..... None

HAZARD CLASS OR DIVISION ....: Non-Regulated

Product Code: \$463-0070 Approval date: 05/09/94 MSDS Page 4 Continued on next page XV. APPROMAYS2 (Boj994ued)

SUPERSEDES DATE...... 11/11/92 MSDS NUMBER..... 08728

MAY 2 3 1994

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Miles Inc. The data on this sheet relates only to the specific material designated herein. Miles Inc. assumes no legal responsibility for use or reliance upon these data.

Product Code: S463-0070 Approval date: 05/09/94

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# IV. FIRE AND EXPLOSION DATA:

FLASH POINT.....: Approx. 446 F (230 C); DIN 51758.

AUTO-IGNITION TEMPERATURE....: Greater than 932 F (500 C); DIN 51794.

EXTINGUISHING MEDIA....: Water; Dry Chemical; Carbon Dioxide; Foam SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

## V. HUMAN HEALTH DATA:

ROUTE(S) OF ENTRY .....: Eye Contact; Skin Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE EFFECTS OF EXPOSURE....: On the basis of animal toxicity data (see Section XII), we would expect this product to be non-irritating to the eyes and skin and to be essentially non-toxic by ingestion. Under ordinary handling and use, no adverse effects of overexposure have been reported. However, if subjected to unusually high processing temperatures, the resulting thermal decomposition products may be irritating to the eyes and respiratory tract. Direct eye contact may cause a transitory irritation,

but it is not injurious. This irritation may persist for up to 24 hours. Symptoms consist of reversible clouding of vision due to the oily film that forms on the eyeball. The filler contained in this product is thoroughly mixed as part of the paste. Therefore, exposure by inhalation is not expected.

CHRONIC EFFECTS OF EXPOSURE...: No applicable information was found concerning any adverse chronic human health effects.

OTHER EFFECTS OF EXPOSURE....: This product contains methylpolysiloxanes which can generate formaldehyde at temperatures above 150°C (302 F) in atmospheres which contain oxygen. Formaldehyde is an eye and respiratory irritant, a skin and respiratory sensitizer, and a potential cancer hazard. Exposures to formaldehyde are regulated by the Occupational Safety and Health Administration (OSHA) under 29 CFR part 1910.1048. Workplace exposure to formaldehyde should be evaluated when this product is used in high temperature processes {above 150 C (302 F)}, to assess whether the actual airborne concentrations exceed any of the action levels defined in the OSHA Standard.

CARCINOGENICITY..... The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

MEDICAL CONDITIONS
AGGRAVATED BY EXPOSURE....: None known.

Product Code: S462-0070 Approval date: 05/09/94 MSDS Page 2 Continued on next page

## XI. SHIPPING INFORMATION (Continued)

## DOT (HM-181) (continued)

## IHO / IMDG CODE (OCEAN)

PROPER SHIPPING NAME..... None

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

## ICAO / IATA (AIR)

PROPER SHIPPING NAME..... None

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

### XII. ANIMAL TOXICITY DATA:

ACUTE TOXICITY

ORAL LD50..... Greater than 5000 mg/kg (Rat). (1)

EYE EFFECTS.....: Moderately irritating to rabbit eyes. (1)

SKIN EFFECTS.....: Non-irritating to rabbit skin (4 hrs.). (1)

1 Toxicological tests on analogous products. Tests conducted at the Institute for Toxicology of Miles Inc.'s parent company.

### XIII. FEDERAL REGULATORY INFORMATION:

OSHA STATUS..... This product is hazardous under the criteria of

the Federal OSHA Hazard Communication Standard 29

CFR 1910.1200.

TSCA STATUS..... On TSCA Inventory

CERCLA REPORTABLE QUANTITY..: None.

SARA TITLE III:

SECTION 302 EXTREMELY

HAZARDOUS SUBSTANCES..: None.

**SECTION 311/312** 

HAZARD CATEGORIES....: Immediate Health Hazard

SECTION 313

TOXIC CHEMICALS..... None.

RCRA STATUS..... If discarded in its purchased form, this product?

would not be a hazardous waste either by listing, or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous

waste. (40 CFR 261.20-24)

Product Code: S463-0070 Approval date: 05/09/94 MSDS Page 5 Continued on next page

## XIV. OTHER REGULATORY INFORMATION:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME
/CAS NUMBER

CONCENTRATION

STATE CODE

Vinyl-terminated polydimethylsiloxane

68083-19-2 Pro

roprietary % PA3, NJ4

Vinyl-terminated polydimethylmethylvinylsiloxane

68083-18-1 Proprietary 7 PA3, NJ4

Dimethylmethylhydrogensiloxane

68037-59-2 Proprietary 1

PA3, NJ4

Organically modified amorphous silica\*

NJTSRN (31765300002)-7338F

Proprietary 7

PA3, NJ4

NJ4 = New Jersey Other - included in 5 predominant ingredients > 1% NJTSRN = New Jersey Trade Secret Registry Number PA3 = Pennsylvania Non-hazardous present at 3% or greater.

## CALIFORNIA PROPOSITION 65

To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects.

## MASSACHUSETTS SUBSTANCE LIST (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. To the best of our knowledge, this product contains no substances at a level which could require reporting under the statute.

\* This component is bound in this product in a manner which presents no potential for exposure, therefore, this chemical is not considered in the hazard determination process.

## XV. APPROVALS:

REASON FOR ISSUE..... Revise Sections V and VII.

PREPARED BY..... D. P. Kelly

APPROVED BY...... J. H. Mostowy

APPROVAL DATE..... 05/09/94

Product Code: S463-0070 Approval date: 05/09/94 MSDS Page 6 Continued on next page