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MATERIAL SAFETY DATA SHEET

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SECTION 1. COMPANY IDENTIFICATION

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## COMPANY IDENTIFICATION

MANUFACTURER'S NAME: Shin-Etsu Chemical Co., Ltd.

ADDRESS: 6-1, 2-Chome, Ohtemachi, Chiyodaku, Tokyo, JAPAN

EMERGENCY TELEPHONE NUMBER:

02-775-9691(Shin-Etsu Silicone Korea Co., Ltd.)

TELEPHONE NUMBER FOR INFORMATION:

03-3246-5121(Tokyo, JAPAN)

02-775-9691(Shin-Etsu Silicone Korea Co., Ltd.)

DATA PREPARED : 01/18/1994

LAST REVISION : 11/01/2005

DATA ISSUED : 03/29/2006

ISSUE NO 200603002916

BASE NO 3

PRODUCT NAME :

**KF-54**

PRODUCT CLASSIFICATION:

Silicone Fluid

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SECTION 2. COMPOSITION

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SINGLE OR MIXTURE:

Single

CHEMICAL IDENTIFICATION:

Methylphenylpolysiloxane

HAZARDOUS COMPONENT(S):

CAS No. EINECS / COMPONENT(S)

Wt %

CLASSIFICATION

ELINCS No.

No hazardous materials present

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SECTION 3. HAZARDS IDENTIFICATION

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PRINCIPAL HAZARD:

This product is not applicable to hazard defined in the Directive 67/548/EEC.

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SECTION 4. FIRST AID MEASURES

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SKIN contact ; Remove product from skin with dry cloth or  
towel, and wash exposed area with detergent.EYES contact ; Immediately flush with water for at least  
15 minutes.

INGESTION ; Wash out mouth with water provided person is

conscious. Never give anything by mouth to an unconscious person. Call a physician immediately.

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**SECTION 5. FIRE FIGHTING MEASURES**

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## EXTINGUISHING MEDIA:

Foam, dry chemical or carbon dioxide

## SPECIAL FIRE FIGHTING PROCEDURE:

None

## UNUSUAL FIRE AND EXPLOSION HAZARD:

None

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

Contain the spill or leak.

Scrape up with cardboard or rag and place in container.

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**SECTION 7. HANDLING AND STORAGE**

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## PRECAUTION TO BE TAKEN IN HANDLING AND STORING:

Keep container closed when not in use.

Store in a cool place.

Keep away from heat and flame.

Do not lay the container on its side.

Avoid contact with eyes and prolonged or repeated skin contact.

Keep out of reach of children.

\* \* \* \* \* Information about the emptied container \* \* \* \* \*

Do not re-use this container.

Keep away from heat, sparks and flame.

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

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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## EXPOSURE GUIDELINES:

ACGIH TLV-TWA : Not established,

OSHA PEL : Not established

## RESPIRATORY PROTECTION(specify type):

See SECTION 11 of this MSDS for OTHER INFORMATION

## VENTILATION:

LOCAL EXHAUST: See SECTION 11 of this MSDS for OTHER INFORMATION

MECHANICAL(general): See SECTION 11 of this MSDS for OTHER  
INFORMATION

SPECIAL: Unknown

OTHER: Unknown

## PROTECTIVE GLOVES:

Plastic film or rubber gloves

## EYE PROTECTION:

Safety glasses

## OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Eyewash equipment

## WORK/HYGIENIC PRACTICES:

Wash hands after handling.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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## BOILING POINT:

Not applicable

## FLASH POINT(method used):

&gt;300 degrees C (Open cup)

&gt;94 degrees C (Closed cup)

## FLAMMABLE LIMITS:

LOWER: Not measured UPPER: Not measured

## VAPOR PRESSURE:

Negligible (25 degrees C)

## VAPOR DENSITY(air=1):

Not applicable

## SPECIFIC GRAVITY:

1.07 (25 degrees C)

## Viscosity:

400 mm<sup>2</sup>/s (25 degrees C)

## MELTING POINT:

Not applicable

## EVAPORATION RATE:

Negligible (Butyl Acetate=1)

## Partition coefficient(Log n-Octanol/Water):

Not applicable

## SOLUBILITY IN WATER:

Not soluble (&lt;1 ppm)

## APPEARANCE(color):

Colorless, transparent

## APPEARANCE(form):

Fluid

## ODOR:

Odorless

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**SECTION 10. STABILITY AND REACTIVITY**

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## STABILITY:

Stable

## CONDITION TO AVOID:

None

INCOMPATIBILITY(material to avoid):

None

HAZARDOUS DECOMPOSITION OR BY-PRODUCT:

None

HAZARDOUS POLYMERIZATION:

Will not occur

CONDITION TO AVOID:

None

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## SECTION 11. TOXICOLOGICAL INFORMATION

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SKIN IRRITATION:

SKIN-RABBIT : 0.5ml MILD(PII=0.28)

Patch Test(24Hr/Open) : Almost Negative

EYE IRRITATION:

EYE-RABBIT : 0.1ml MILD

SENSITIZATION:

Not skin sensitizer.(Guinea pig)

ACUTE TOXICITY(LD50):

LD50(Oral/Rat) : >5g/kg

ACUTE TOXICITY(LC50):

Not applicable

CHRONIC TOXICITY:

No information is available.

CARCINOGENICITY:

NTP:Not listed, IARC:Not listed, OSHA REGULATED:Not listed

OTHER INFORMATION:

This product can generate formaldehyde at approximately 150 degrees C(300°F) and above in the presence of air. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential cancer hazard. So, use adequate ventilation or wear protective equipment such as gloves, goggles or protective clothing when this product is heated at approximately 150 degrees C(300°F) and above in the presence of air.

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## SECTION 12. ECOLOGICAL INFORMATION

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BIODEGRADATION:

No evidence of biodegradation

BIOACCUMULATION:

No evidence of bioaccumulation

AQUATIC TOXICITY:

No information is available.

OTHER INFORMATION:

No ozone depleting materials(CFCs,HALONs and HCFCs) are present and used in manufacturing.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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Can be burned in a chemical incinerator equipped with an afterburner and scrubber.

Do not dispose the emptied container unlawfully.

Observe all federal, state, and local laws.

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**SECTION 14. TRANSPORT INFORMATION**

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UN No.:

None

IMO CLASSIFICATION AND CLASS:

None

PACKAGING GROUP:

None

PROPER SHIPPING NAME:

None

TECHNICAL SHIPPING NAME:

None

MARINE POLLUTANT:

None

DOT REPORTABLE QUANTITY(49CFR 172.101, APP.) :

HAZARD SUBSTANCE(S) NAME / (CAS No.), CONTENTS AND RQ

Not applicable

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**SECTION 15. REGULATORY INFORMATION**

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TOXIC SUBSTANCES CONTROL ACT(TSCA) STATUS:

Listed on the TSCA Inventory.

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EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES

(EINECS) STATUS:

Listed on the EINECS.

LABELING ACCORDING TO EC-REGULATIONS REQUIRED:

SYMBOL : Not required

R-PHRASE : Not required

S-PHRASE : Not required

CONTAINS : None

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WGK CLASSIFICATION (Water Resources Act in Germany):

WGK=1

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SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986(SARA)

TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of 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 chemical(s) contained in this product are:

CHEMICAL NAME/(CAS No.) AND CONTENTS

\*\* None \*\*

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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 \*\*

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## SECTION 16. OTHER INFORMATION

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For Industrial Use Only

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This materials safety data sheet is offered solely for your information, consideration and investigation.

The data described in this MSDS consist of data on literature, our acquisitional data and analogical inference by data of similar chemical substance or product.

Shin-Etsu Chemical Co., Ltd. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.

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