

SAFETY DATA SHEET

1. IDENTIFICATION

A. Product name

- SeraSense SF 10K [SF1000NFK010]

B. Recommended use and restriction on use

- General use : Cosmetic, Lubricant- Restriction on use : None known

C. Supplier information

- Company name : KCC Silicone Corporation

- Address : 35, Daejuk 2-ro, Daesan-eup, Seosan-si, Chungcheongnam-do

- Emergency telephone : 82-41-660-8700

number

2. HAZARD IDENTIFICATION

A. GHS Classification

- Acute aquatic toxicity : Category3

- Serious eye damage/irritation : Category2B

B. GHS label elements

o Hazard symbols

- Not applicable

o Signal words

- Warning

• Hazard statements

- H320 Cause eye irritation.
- H402 Harmful to aquatic organisms.

o Precautionary statements

1) Prevention

- P264 Wash hands thoroughly after handling.
- P273 Avoid release to the environment.

2) Response

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.

3) Storage

- Not applicable

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification : (NFPA Classification)

\circ NFPA grade (0 ~ 4 level)

- Health : $\mathbf{1}$, Flammability : $\mathbf{1}$, Reactivity : $\mathbf{0}$

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Trade names and Synonyms | CAS No. | Content(%) |
|--------------------------------|----------------------------------|------------|------------|
| Siloxanes and Silicones, di-Me | Dimethyl silicones and siloxanes | 63148-62-9 | 95 ~ 100 |

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.

B. Skin contact



- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Notify your local firestation and inform the location of the fire and characteristics hazard.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Avoid inhalation of materials or combustion by-products.
- $\mbox{\sc Do}$ not approach the tank surrounded by fire until it is extinguished.
- Use appropriate extinguishing measure suitable for surrounding fire.
- Keep containers cool with water spray.
- Vapor or gas is burned at distant ignition sources can be spread quickly.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Must work against the wind, let the upwind people to evacuate.
- Move container to safe area from the leak area.
- Remove all sources of ignition.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Do not direct water at spill or source of leak.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.
- Disposal of waste shall be in compliance with the Wastes Control?Act
- Appropriate container for disposal of spilled material collected.
- Small leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal.

7. HANDLING AND STORAGE

A. Precautions for safe handling



- Wash thoroughly after handling.
- Avoid direct physical contact.
- Avoid contact with incompatible materials.
- Refer to Engineering controls and personal protective equipment.
- Do not inhale the steam prolonged or repeated.

B. Conditions for safe storage, including any incompatibilities

- Do not use damaged containers.
- Do not apply direct heat.
- Store according to current laws and regulations
- Avoid direct sunlight.
- Keep in the original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- o ACGIH TLV
 - Not available
- $\circ \ OSHA \ PEL$
 - Not available

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

C. Individual protection measures, such as personal protective equipment

o Respiratory protection

- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use.
- Any chemical cartridge respirator with organic vapor cartridge(s).
- Any chemical cartridge respirator with a full facepiece and organic vaporcartridge(s).
- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- For Unknown Concentration or Immediately Dangerous to Life or Health: Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.

• Eye protection

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

o Hand protection

- Wear appropriate glove.

$\circ \ Skin \ protection$

- Wear appropriate clothing.

o Others

- Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

| A. Appearance | |
|-----------------------------------------|------------------------|
| - Appearance | Liquid(Viscous liquid) |
| - Color | colorless |
| B. Odor | odorless |
| C. Odor threshold | Not available |
| D. pH | Not available |
| E. Melting point/Freezing point | <-50 |
| F. Initial Boiling Point/Boiling Ranges | 182 °C |
| G. Flash point | 315 ℃ |
| H. Evaporation rate | Not available |
| I. Flammability(solid, gas) | Not available |



| J. Upper/Lower Flammability or explosive limits | Not available |
|-------------------------------------------------|---------------------|
| K. Vapour pressure | Not available |
| L. Solubility | Not available |
| M. Vapour density | Not available |
| N. Specific gravity(Relative density) | 0.97 |
| O. Partition coefficient of n-octanol/water | Not available |
| P. Autoignition temperature | Not available |
| Q. Decomposition temperature | Not available |
| R. Viscosity | 10,000 mm2/s @ 25 ℃ |
| S. Molecular weight | Not available |

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- $\circ \ (Respiratory \ tracts)$
 - Not available
- o (Oral)
 - Not available
- (Eye·Skin)
 - Cause eye irritation.

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- $\circ \ Acute \ toxicity$
 - * Oral
 - Product (ATEmix) : >5000mg/kg
 - [Siloxanes and Silicones, di-Me]: LD50 > 17000 mg/kg Rat (NLM)
 - * Dermal
 - Product (ATEmix): >5000mg/kg
 - [Siloxanes and Silicones, di-Me] : LD50 > 2000 mg/kg Rabbit (NLM)
 - * Inhalation
 - Not available
- Skin corrosion/irritation
 - Not available
- $\circ \ Serious \ eye \ damage/irritation$
 - Cause eye irritation.
- $\circ \ Respiratory \ sensitization$
 - Not available
- O Skin sensitization
 - Not available
- o Carcinogenicity
 - * IARC



- Not available
- * OSHA
 - Not available
- * ACGIH
 - Not available
- * NTP
 - Not available
- * EU CLP
 - Not available
- o Germ cell mutagenicity
 - Not available
- o Reproductive toxicity
 - Not available
- o STOT-single exposure
 - Not available
- o STOT-repeated exposure
 - Not available
- O Aspiration hazard
 - Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- o Fish
 - [Siloxanes and Silicones, di-Me] : LC50 = 37.79 $\,\mathrm{mg/\ell}$ 96 hr Lepomis macrochirus (ECOTOX)
- Crustaceans
 - [Siloxanes and Silicones, di-Me] : LC50 = 44.5 $\,\mathrm{mg}/\ell$ 48 hr DaPHnia magna (ECOTOX)
- o Algae
 - Not available

B. Persistence and degradability

- o Persistence
 - Not available
- o Degradability
 - Not available

C. Bioaccumulative potential

- o Bioaccumulative potential
 - Not available
- o Biodegradation
 - Not available

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- It shall be treated by incineration

B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act



- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN No. (IMDG)

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG Packing group

- Not applicable

E. Marine pollutant

- Not applicable

F. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- Air transport(IATA): This product is NOT classified as dangerous for IATA Transport.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE: Not available

15. REGULATORY INFORMATION

A. National and/or international regulatory information

- o POPs Management Law
 - Not applicable
- $\circ \ \textbf{Information of EU Classification} \\$
 - * Classification
 - Not applicable
- \circ U.S. Federal regulations
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - Not applicable
 - * CERCLA Section 103 (40CFR302.4)
 - Not applicable
 - * EPCRA Section 302 (40CFR355.30)
 - Not applicable
 - * EPCRA Section 304 (40CFR355.40)
 - Not applicable
 - * EPCRA Section 313 (40CFR372.65)
 - Not applicable
- ${\color{gray} \circ} \ \textbf{Rotterdam} \ \textbf{Convention listed ingredients}$
 - Not applicable
- o Stockholm Convention listed ingredients
 - Not applicable
- o Montreal Protocol listed ingredients
 - Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS



B. Issue date

- 2019-03-19

C. Revision number and Last date revised

- 1 times, 2020-11-27

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).