

# SAFETY DATA SHEET

## SILSOFT E-PEARL PMF

(In accordance with Article 41, Paragraph 1, of Industrial Safety and Health Act)

### Section 1. Chemical product and company identification

- A. **Product name** : SILSOFT E-PEARL PMF  
**MSDS Number** : 000000055099
- B. **Material uses** : Personal care
- C. **Company/undertaking identification**
- Manufacturer/Importer/Distributor Information** : Momentive Performance Materials Korea Co., Ltd.  
8FL, Daeryung Post Tower 6-Cha, 298, Beotkkot-ro,  
Geumcheon-gu, Seoul 153-715 Korea
- Contact person** : commercial.services@momentive.com
- Telephone** : +82-2-6201-4600  
**Telefax** : +82-2-6201-4601
- Emergency telephone number** : +65-3158-1074 / +82-2-6201-4600
- Responsible Department** : Product Stewardship & Compliance

### Section 2. Hazards identification

- A. **Hazard classification** : AQUATIC HAZARD (LONG-TERM) - Category 3
- B. **GHS label elements, including precautionary statements**
- Signal word** : No signal word.  
**Hazard statements** : Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- General** : Not applicable.
- Prevention** : Avoid release to the environment.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

- C. Other hazards which do not result in classification : None known.

### Section 3. Composition/information on ingredients

- Substance/mixture : Mixture  
Chemical name : Not available

Hazardous ingredient name	CAS number	% by weight
Isohexadecane	Trade secret.	>=10 - <20
Poly(oxy-1,2-ethanediyl), .alpha.-octadecyl-.omega.-hydroxy-	9005-00-9	0 - <10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

- A. Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- B. Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- C. Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- D. Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- E. Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments : No specific treatment.
- Protection of first aid : No action shall be taken involving any personal risk or without

personnel

suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### A. Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray (fog).

**Unsuitable extinguishing media** : water jet

**B. Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

**C. Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Remark** : Not available

## Section 6. Accidental release measures

**A. Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**B. Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if released in large quantities.

### C. Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste

- Large spill** :
- disposal.
  - Stop leak if without risk. Move containers from spill area.
  - Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13 of SDS).
  - Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

## Section 7. Handling and storage

### A. Precautions for safe handling

- Protective measures** :
- Put on appropriate personal protective equipment (see section 8 of SDS). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

- Advice on general occupational hygiene** :
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- B. Conditions for safe storage, including any incompatibilities** :
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Storage temperature:** Do not store below the following temperature: 2 °C  
Do not store above the following temperature: 26 °C

## Section 8. Exposure controls/personal protection

### A. Control parameters

#### Occupational exposure limits

None.

- Recommended monitoring procedures** :
- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- B. Appropriate engineering controls** :
- No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to

**Environmental exposure controls** : keep worker exposure below any recommended or statutory limits. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### C. Personal protective equipment

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 9. Physical and chemical properties

### A. Appearance

**Physical state** : Liquid

**Color** : White

**B. Odor** : Faint odor.

**C. Odor threshold** : Not available

**D. pH** : 4.5

**E. Melting/freezing point** : Not available

**F. Boiling point/boiling range** : 100 °C

**G. Flash point** : Estimated. > 100 °C

**Burning time** : Not available

**Burning rate** : Not available

**H. Evaporation rate** : 1.0

**I. Flammability (solid, gas)** : Not available

**J. Lower and upper explosive (flammable) limits** : **Lower:** Not available  
**Upper:** Not available

**K. Vapor pressure** : Not available

**L. Solubility** : Dispersible

	<b>Solubility in water</b>	:	Dispersible
M.	<b>Vapor density</b>	:	1.0 [Air = 1]
N.	<b>Relative density</b>	:	0.98 @ 25 °C
O.	<b>Partition coefficient: n-octanol/water</b>	:	Not available
P.	<b>Auto-ignition temperature</b>	:	Not available
Q.	<b>Decomposition temperature</b>	:	Not available
	<b>SADT</b>	:	Not available
R.	<b>Viscosity</b>	:	<b>Dynamic:</b> Not available <b>Kinematic:</b> 4,000 mm <sup>2</sup> /s > 20.5 mm <sup>2</sup> /s @ 40 °C
S.	<b>Molecular weight</b>	:	Not available
T.	<b>Density</b>	:	0.98 g/cm <sup>3</sup>

#### Other information

No additional information.

### Section 10. Stability and reactivity

A.	<b>Chemical stability</b>	:	The product is stable.
	<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
B.	<b>Conditions to avoid</b>	:	No specific data.
C.	<b>Incompatible materials</b>	:	No specific data.
D.	<b>Hazardous decomposition products</b>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### Section 11. Toxicological information

A.	<b>Information on the likely routes of exposure</b>	:	Not available
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#### Potential acute health effects

<b>Inhalation</b>	:	No known significant effects or critical hazards.
<b>Ingestion</b>	:	No known significant effects or critical hazards.
<b>Skin contact</b>	:	No known significant effects or critical hazards.
<b>Eye contact</b>	:	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Inhalation</b>	:	No specific data.
<b>Ingestion</b>	:	No specific data.
<b>Skin contact</b>	:	No specific data.
<b>Eye contact</b>	:	No specific data.

B.	<b><u>Health hazards</u></b>
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**Acute toxicity**

Conclusion/Summary : Not available

**Irritation/Corrosion**

Conclusion/Summary

Skin : Not available  
 eyes : Not available  
 Respiratory : Not available

**Sensitization**

Conclusion/Summary

Skin : Not available  
 Respiratory : Not available

**Mutagenicity**

Conclusion/Summary : Not available

**Carcinogenicity**

Conclusion/Summary : Not available

**Reproductive toxicity**

Conclusion/Summary : Not available

**Teratogenicity**

Conclusion/Summary : Not available

**Specific target organ toxicity (single exposure)**

Not available

**Specific target organ toxicity (repeated exposure)**

Not available

**Aspiration hazard**

Product/ingredient name	Result
Isohexadecane	ASPIRATION HAZARD - Category 1

**Potential chronic health effects****Chronic toxicity**

Conclusion/Summary : Not available

General : No known significant effects or critical hazards.  
 Carcinogenicity : No known significant effects or critical hazards.  
 Mutagenicity : No known significant effects or critical hazards.  
 Teratogenicity : No known significant effects or critical hazards.  
 Developmental effects : No known significant effects or critical hazards.  
 Fertility effects : No known significant effects or critical hazards.

Other information : Not available

**ATE value**

Route	Result
Inhalation (vapors)	mg/l

## Section 12. Ecological information

**A. Ecotoxicity**

Conclusion/Summary : Not available

**B. Persistence and degradability**

Conclusion/Summary : Not available

**C. Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Poly(oxy-1,2-ethanediyl), .alpha.-octadecyl-.omega.-hydroxy-		-	low

**D. Mobility in soil**

Soil/water partition coefficient (KOC) : Not available

E. **Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- A. Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- B. Disposal precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

\*PG : Packing group

**Special precautions for user** : The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). Keep away from

foodstuffs and animal feed. Sensitive to frost from 0°C. heat sensitive from +25°C

## Section 15. Regulatory information

### A. Regulation according to ISHA

ISHA Article 37 : None required.  
ISHA Article 38 : None required.

### B. Regulation according to TCCA

TCCA Toxic chemicals : Not applicable  
TCCA Observational chemicals : None required.  
TCCA Article 32 (Banned) : None required.  
TCCA Article 32 (Restricted) : None required.  
TCCA Article 17 (TRI) : None required.  
Korea inventory : All components are listed or exempted.

C. **Dangerous Materials Safety Management Act** : Not available

D. **Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### E. Regulation according to other foreign laws

International lists : Japan inventory All components are listed or exempted.  
Australia inventory (AICS) At least one component is not listed.  
Canada inventory At least one component is not listed.  
China inventory (IECSC) All components are listed or exempted.  
Korea inventory All components are listed or exempted.  
Philippines inventory (PICCS) At least one component is not listed.  
United States inventory (TSCA 8b) At least one component is not listed. This product is intended only for personal care applications. It is not intended for industrial use; therefore, it is not subject to TSCA.  
  
Taiwan inventory (CSNN) All components are listed or exempted.

## Section 16. Other information

A. **References** : Not available

B. **Date of issue/Date of revision** : 2015/10/26

C. **Version** : 1.1

**Date of printing** : 2016/05/17

D. **Other**  
**Key to abbreviations** : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
UN = United Nations

### **Notice to reader**

Unless otherwise specified in section 1, Momentive Products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives

### **Further Information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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