



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

LEMON Co., Ltd.

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Product name	LEMON HC-9
CAS Number	confidential
Synonyms	None.
Generic Chemical Name	Poly(ethyleneterephthalate)
Product Type	Eletrospinning nano fiber membrane.
Restrictions on use	Not determined.
Appearance	White membrane.
Created Date	30 May 2014
Preparation/Revision Date	10 May 2017

2. HAZARDS IDENTIFICATION

Hazard Classification	Not determined.
Target Organs	Not determined.
Symbol(s)	Not applicable.
Signal Word	Not applicable.
Hazard statement	Not determined.
Precaution(s)	Not determined.
Other Hazards that do not result in Classification	Not applicable.

Storage Procedures

Store in a well-ventilated place, Avoid direct light and keep in cool places.

Reesponse

In case of fire: Use water spray, dry chemical or foam for extinction.

CO2 may be ineffective on large fires.

IF ON SKIN : Gently wash with plenty of soap and water.

Get medical attention. For hot product, immediately immerse or flush skin with large amounts of cold water. If skin irritation occurs : Get medical attention.

IF IN EYES : Treat as any foreign particulate matter. Should hot, melted melted material splash into the eyes, flush eyes immediately with water for 15 minutes. Get medical attention.

IF INHALED : If experiencing respiratory symptoms: Call the doctor or POISON CENTER

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Treat symptomatically.

Disposal

All disposal practices must be in accordance with local, national and international regulations.

See Section 11 for complete health hazard information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.	Name	Content
25038-59-9	Poly(ethyleneterephthalate)	98~99%
confidential	Polyvinylidene fluoride	< 2%

Hazardous Ingredients

This material has no known hazards under applicable laws. Hazardous ingredient information not provided is considered a trade secret.

4. FIRST AID MEASURES

Oral

Treat symptomatically. Get medical attention.

Eyes	Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids. Get medical attention immediately.
Skin	Wash exposed skin thoroughly with soap or mild detergent and water. If irritation persists or develops, seek medical attention. This material is not expected to present an ingestion hazard in the quantities present in a workplace setting.
Ingestion	Ingestion is not considered a likely route of exposure. However Remove exposed person to fresh air if adverse effects are observed.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water spray, dry chemical, foam. CO2 may be ineffective on large fires.
Fire fighting	Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Avoid inhalation of material or combustion by-products.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution, protective equipment and emergency procedures	Not determined.
Environmental precaution and protective procedures	Not determined.
Methods for clean-up and removal	Pick up free solid for recycle and/or disposal.

7. HANDLING AND STORAGE

Maximum Handling Temperature	Not determined.
Storage Procedures	Store and handle in accordance with all current regulations and

standards. Avoid direct sunlight. See original container for storage recommendations. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	Use with adequate ventilation.
Gloves Procedures	Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.
Eye Protection	Safety Glasses.
Respiratory Protection	Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if the recommended exposure limit is exceeded, or if exposure to vapors is likely. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
Clothing Recommendation	Long sleeve shirt is recommended.

9. EXPOSURE CONTROLS / PERSONAL PROTECTION

Flash Point	Non burning .
Autoignition Point	Not determined.
Decomposition Temperature	Not determined.
Explosion Data	Material does not have explosive properties.
Vapor Pressure	Not determined.
pH	Not determined.
Specific Gravity	Not determined.
Water Solubility	Insoluble.
Vapor Density	Not determined.

Appearance	White.
Odor	Odorless.
Boiling Point	Not determined.

The above data are typical values and do not constitute a specification.

Vapor pressure data are calculated unless otherwise noted.

10. STABILITY AND REACTIVITY

Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Polymerization	Will not occur.
Conditions to Avoid	Not determined.

11. TOXICOLOGICAL INFORMATION

Oral Toxicity	The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Ingestion of this material may cause gastrointestinal irritation.
Respiratory Irritation	At processing or combustion temperatures this product may emit fumes and vapors that cause irritation, possibly severe, to the respiratory tract, eyes, or skin.
Eye Irritation	Not expected to cause eye irritation. Based on data from similar materials. Particulates may cause mechanical irritation. At processing or combustion temperatures this product may emit fumes and vapors that cause irritation, possibly severe, to the eyes.
Skin Irritation	Not expected to be a primary skin irritant.

Based on data from similar materials.

Contact with heated polymer may cause thermal burns and adhesion of solidified product to the skin.

Dermal Sensitization

No data available to indicate product or components may be a skin sensitizer.

Inhalation Sensitization

No data available to indicate product or components may be respiratory sensitizers.

Chronic Toxicity

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Carcinogenicity

No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

12. ECOLOGICAL INFORMATION

Freshwater Fish Toxicity

Not determined.

Algal Inhibition

Not determined.

Saltwater Fish Toxicity

Not determined.

Saltwater Invertebrates Toxicity

Not determined.

Bacteria Toxicity

Not determined.

Miscellaneous Toxicity

Not determined.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations

All disposal practices must be in accordance with local, regional, national and international regulations.

Precaution for disposal

Not determined.

**Contaminated Containers or
Packaging**

Not determined.

14. TRANSPORT INFORMATION

ICAO/IATA I	Not regulated.
ICAO/IATA II	Not regulated.
IMDG	Not regulated.
IMDG EMS Fire	Not applicable.
IMDG EMS Spill	Not applicable.
IMDG MFAG	Not applicable.
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.

15. REGULATORY INFORMATION

Industrial Safety and Health Act	Prepared pursuant to the provisions of Article 41 of the Industry Safety
Preparation and Keeping MSDS	and Health law.
& Label Special Controlled	Korea
Chemical	Not applicable.
Chemicals Established Limited	Measured Workplace Chemicals
Exposure Values	None known.
	Controlled Hazard Chemical Substance
	None known.
	Permitted for Manufacture and Use
	None known.
	Forbidden chemicals for import , transfer , supply and use
	None known.
Toxic Chemical Control Law	Toxic Chemicals
(TCCL)	None known.
	Prohibited Chemicals
	None known.
	Restricted Chemicals

None known.

Observational Chemicals

None known.

New Chemicals

None known.

Dangerous Materials Safety

Control Act

None known.

Waste Disposal Control Act

Not considered a waste based on the Waste Disposal Control Act

(WDCA)

(WDCA) in Korea.

Other TSCA Reg.

None known.

FDA Approval

Not applicable.

16. OTHER INFORMATION

TOPTEC HNS warrants its products against defects in material or workmanship for a period of half year from the date of delivery when used in accordance with these instructions.

The liability of TOPTEC HNS is limited to replacement, or repair, at its option of any product.

TOPTEC HNS makes no other warranty, expressed or implied. Specifications listed in these instructions represent values in effect at the time of printing and are subject to change without notice.