

## Material Safety Data Sheet(MSDS)

### Section 1. Chemical Product and Company Identification

Product Name	JH-40NF, JH-40NS, JH-40NFT, JH-40NST
Manufacturer's name & address	Jin Heung Industrial Co. Ltd, 506-4, Paltan Myun Yulam Ri, Hwasung Shi, Kyunggi Do, Korea
<b>In Case of Emergency</b>	Tel. 82-31-352-7751 Fax. 82-31-352-7754
Revision Date	NOVEMBER 11, 2008

### Section 2. PRODUCT IDENTIFICATION

PRODUCT NAME	SUNEVA
CHEMICAL NAME	Complex mixture
MOLECULAR FORMULA	Mixture
SYNONYMS	ethylene vinyl acetate
CHEMICAL FAMILY	ethyl alcohol and vinyl acetone

### Section 3. HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	(%)	OSHA PEL	ACGIH TLV
Vinyl Acetate(CAS# 108-05-4)	<0.3	10ppm	10ppm
Polyvinyl Alcohol(CAS# 9002-89-5)	<1.0	N/A	N/A
00-t-Butyl 0 -(2-Ethylhexyl) Monoperoxy carbonate (CAS# 34443-12-4)	0-5.0	N/A	N/A
2,5-dimethyl-2,5-(t-butylperoxy)hexane(CAS# 78-63-7)	0-5.0	N/A	N/A
Hydroxy-n-alkoxybenzophone(CAS# 1843-05-6)	<1.0	N/A	N/A
Poly(dipropylene glycol) phenyl phosphate (CAS# 80584-86-7)	0-0.5	N/A	N/A
Methoxysilane(CAS# 2530-85-0)	<0.5	200ppm	200ppm

## **POTENTIAL HEALTH EFFECTS**

No information available for this EVA sheet.

At processing temperature above 204deg C, fumes irritating to the  
Eyes, nose, and throat may be evolved.

Exposure may result in redness, itching and tearing of the eyes and  
Soreness in the nose and throat together with coughing.

## **HAZARDS OF CONTAINED COMPONENT**

A very small amount of vinyl acetate is contained as a residual monomer.

In 1995, vinyl acetate (VA monomer) was classified into "2B" (Vinyl acetate is  
Possibly carcinogenic to humans.) in grouping of International Agency for  
Research on Cancer (IARC). On the other hand, vinyl acetate was classified into  
"A3" (Substances in which carcinogenicity was identified only in experimental  
Animals.) in grouping of American Conference of Governmental Industrial  
Hygienists (ACGIH).

In Japan too, labor Ministry designated vinyl acetate as a material to be guided  
In compliance with the guideline, based on the 3<sup>rd</sup> item of Article 28 in  
Industrial Safety and Health Law in 1997.

However the present polymer contains vinyl acetate less than 1% (excluded).  
Therefore the polymer is not a material to be guided by the guideline. As a  
matter of fact, the product-containing vinyl acetate can be discharged into air  
and resided depending on working conditions. Accordingly, it is necessary to  
ventilate and keep concentration less than the threshold limit values (TLV) in  
the atmosphere.

The threshold limit values, recommended by ACGIH, are 10 ppm (8-hour time-  
Weighted average) (TWA) and 15 ppm (short term exposure limit) (STEL).

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**Section 4. FIRST AID MEASURE**

<b>INGESTION</b>	No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary
<b>SKIN CONTACT</b>	The compound is not likely to be hazardous by skin contact but Cleansing the skin after use is advisable
<b>EYE CONTACT</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. <b>Call a physician</b>
<b>INHALATION</b>	No specific intervention is indicated as compound is not likely to be hazardous by inhalation. Consult a physician if necessary

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**Section 5. FIRE FIGHTING MEASURES**

<b>FLAMMABLE PROPERTIES</b>	Flash point 205~285 deg C(401~545 F)
<b>EXTINGUISHING MEDIA</b>	Water fog, foam, dry chemical, CO <sub>2</sub>
<b>FIRE FIGHTING INSTRUCTIONS</b>	Keep personnel removed and upwind of fire. Use self-contained breathing apparatus if exposed To fumes

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**Section 6. ACCIDENTAL RELEASE MEASURES**

<b>SPILL CLEAN UP</b>	Recover undamaged and minimally contaminated material for reuse and reclamation
<b>ACCIDENTAL RELEASE MEASURES</b>	Sweep up to avoid slipping hazard.

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**Section 7. HANDLING AND STORAGE**

<b>HANDLING (PERSONNEL)</b>	See FIRST AID MEASURE AND PERSONAL PROTECTIVE EQUIPMENT SECTION
<b>STORAGE</b>	Storage in a cool, dry place. Keep containers closed to prevent contamination

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

<b>ENGINEERING CONTROLS</b>	
<b>VENTILATION</b>	Local exhaust ventilation should be used over processing equipment.
<b>PERSONAL PROTECTIVE EQUIPMENT</b>	
<b>EYE</b>	Safety glasses are recommended as good industrial practice. Glasses are necessary when working with molten polymer.
<b>SKIN</b>	Protective gloves and long sleeve shirt when handling hot polymer to avoid skin contact.
<b>RESPIATORS</b>	Not required if local ventilation is adequate.
<b>[EXPOSURE LIMITS ABOUT PARTICULATES ARE DESCRIBED IN Section.14]</b>	

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**Section 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form</b>	Films
<b>Color</b>	Translucent to white
<b>Odor</b>	Mild acetic acid
<b>Specific Gravity</b>	0.94~0.97
<b>Softening Point</b>	Below 87 (Method : Vicat)
<b>Solubility in Water</b>	Negligible

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**Section 10. STABILITY AND REACTIVITY**

<b>CHEMICAL STABILITY</b>	Stable at low temperatures and dry storage conditions.
<b>INCOMPATIBILITY WITH OTHER MATERIALS</b>	None reasonably foreseeable.
<b>DECOMPOSITION</b>	Decomposition with heat.
<b>POYMERIZTION</b>	Polymerization will not occur.

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**Section 11. ECOLOGICAL INFORMATION**

**AQUATIC TOXICITY** : No information

Toxicity is expected to be low based on negligible water solubility

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**Section 12. DISPOSAL CONSIDERATION**

**WASTE DISPOSAL** : Preferred option for disposal are

①incineration with energy recover, and ②landfill.

The high fuel value of this resin makes option

①desirable for material that cannot be recycled

These treatments must be in accordance with

applicable federal, state/ provincial, and local regulations.

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### **Section 13. TRANSPORTATION INFORMATION**

SHIPPING INFORMATION

DOT

**HAZARD CLASS** : Not regulated.

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### **Section 14. OTHER INFORMATION**

**MEDICAL USE** : It is prohibited to use this material for medical applications in

Which the material used for a permanent implantation in the human  
body or a permanent contact with internal body fluids or tissues.

(in this case, "permanent" means residing for more than 30 days.)

**EXPOSURE LIMITS** : PEL (OSHA)

Particulates (Not otherwise regulated)

Respirable dust(8Hr. TWA) 5mg/m<sup>3</sup>

**Total dust (8Hr. TWA) 15 mg/m<sup>3</sup>**

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THIS MATERIAL SAFETY DATA SHEET (MSDS) WAS COMPLIED WITH MUCH CARE  
BASED ON DMP EXPERTISE, BUT IT MAY BE REVISED DUE TO NEW EXPERTISE,  
TESTS AND OTHERS.

WHILE THE DESCRIBED CONTENTS ARE GUARANTEED IN THE NORMAL CONDITION  
OF USE, SAFETY AND HEALTH ARE NOT GUARANTEED UNDER SPECIAL CONDITIONS  
OR IN COMBINATION WITH ANY MATERIAL.

**WHEN YOU USE THIS MATERIAL, DMP ASK YOU TO COMPLY WITH THE APPLICABLE LAWS AND READ THIS MADS FOR YOUR INFORMATION.**

**IT IS ALSO IMPORTANT FOR HANDLING THE MATERIAL IN A WAY FIT FOR YOUR COMPANY TO KEEP SAFETY.**

**THE DATA WRITTEN IN THIS MSDS ARE NOT GURANTEED VALUES, BUT REPRESENTATIVE VALUES.**