



## Material Safety Data Sheet

### 1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

**Product Name:** HANWET HAS-S100

**Supplier** : Hansol Chemical Co., Ltd.  
Hansol Bld'G 18F, 736-1, Yoksam-Dong, Kangnam-Ku,  
Seoul, 135-080, Korea

**Description** : Alkaline sizing agent, Emulsion of Alkyl Ketene Dimer

**Emergency Telephone Number** : Phone) 82-2-3287-6773/6788  
Fax) 82-2-3287-6712/13

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Exposure
ALKYL KETENE DIMER	84989-41-3	None Assigned
CATIONIC STARCH	56780-58-6	None Assigned
WATER	7732-18-5	None Assigned

### 3. HAZARDS IDENTIFICATION

It's white emulsion with no odor.

Avoid contact with skin eyes and clothing. Contact with eyes may product irritation and/or redness.

Inhaled dust may cause some respiratory irritation.

### 4. FIRST AND MEASURES

**Inhalation** : Move subject to fresh air. Administer artificial respiration if required.  
Get medical assistance.

**Skin** : Wash skin with soap and water. Remove and launder contaminated clothing before reuse. Get medical attention if irritation persists.



- Eye Contact** : Immediately flush with water for 15 minutes or longer. Lift upper and lower eyelids to ensure removal of chemical. Get medical attention.
- Ingestion** : The product is not considered toxic based on studies on laboratory animals.
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## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media** :

Use carbon dioxide or dry chemical for small fires and fog or foam for large fires.

**Special fire-fighting pre cautions** : N.A

**Special protective equipment for firefighters** :

Wear self-contained breathing apparatus and complete personal protective equipment when entering confined area where there is potential for exposure to vapors or combustion products

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** : No special precautions required.

**Environmental precautions** : N.A

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## 7. HANDLING AND STORAGE

**Handling** : Avoid contact with eyes, skin and clothing. When preparing the working solution ensure there is adequate ventilation. Don't smoke in using.

**Storage** : Avoid extremes of temperature ; Wet, damp and humid conditions. Keep in a dry, cool place(10~30°C). Keep away heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls** :

General ventilation is recommended. Eyewash and safety shower stations are recommended.

**Personal protection equipment**

**Respiratory protection** :

Respiratory protection is not normally needed since volatility and toxicity are low.

If significant dusting occurs, use NIOSH approved respirator(ANSIZ882. 1980) or equivalent.

**Hand protection** : Rubber gloves

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**Eye protection** : Chemical splash goggles. Do not wear contact lenses.

**Skin protection** :

Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

**Hygiene measures** :

Wash hands before breaks and at the end of workday. Handle in repeated contact with good industrial hygiene and safety practice

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state, color and odor** : White emulsion with no odor

**pH** : 2.6 ~ 3.1

**Solid content** : Min 14.5 %

**Viscosity** : Max 20 cps

**Boiling point** : 100°C and above

**Freezing point** : -3°C

**Vapor pressure** : < 0.01mmHg

**Specific gravity** : 1.0 ~ 1.1

**Water solubility** : Completely soluble

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## 10. STABILITY AND REACTIVITY

**Stability** : Product is very stable, no hazardous polymerization will occur.

**Materials to avoid** : Strong oxidants such as liquid chlorine, enriched gaseous or liquid oxygen and sodium or calcium hypochlorite.

**Hazardous decomposition products** :

Oxides of carbon and nitrogen, ammonia and/or hydrogen chloride.

Vapor may be irritating or harmful.

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## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

Not listed as a carcinogen by IARC, NTP, OSHA or ACGIN.

**Oral** : N.A

**Dermal** :

The result of testing on rabbits showed this material to be non-toxic even at high dose levels.

**Inhalation** : The product is not expected to be toxic by inhalation

**Irritancy and corrosiveness :**

May be slightly irritating to skin and eyes on prolonged exposure. No evidence of corrosiveness

**Sensitization** : None known

**Subacute, Subchronic and prolonged toxicity** : N.A

**Empirical data on effects on humans** : Considered non toxic in normal.

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## 12. ECOLOGICAL INFORMATION

**Aquatic toxicity** : N.A

**Bioaccumulation** : The product is not expected to bioaccumulate.

**Persistence/Degradability** : N.A

**Other Information** :

Discharge of this product must be in accordance with all federal, state, local or applicable laws and regulations.

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## 13. DISPOSAL CONSIDERATIONS

**Disposal method** : Incinerate or place in chemical landfill in accordance with federal, state and local regulations. The material, as sold, is not a hazardous waste under current RCRA regulations.

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## 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

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## 15. REGULATORY INFORMATION

**CERCLA/SARA Hazard category** : None

### INVENTORY INFORMATION

**EEC EINECS** :

All components of this product are included on the European Inventory of Existing Chemical Substances(EINECS) in compliance with Council Directive 67/548/EEC as amended.

**US TSCA** :

This product is manufactured in compliance with all provisions of the Toxic Substances Control Act 15 U.S.C.

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## 16. OTHER INFORMATION

N.A

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Further information may be obtained from :      Hansol chemical Co., Ltd.  
565-900  
816 Yongamri Bongdong Eup  
Wanju Gun Chunbuk, Korea

Telephone      : 82-63-260-8165  
Fax              : 82-63-260-8156

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The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative Regulations relative to product, environmental safety and hygiene, which are of user own responsibility. In case of mixture with other substances, ensure that other risks are not generated.

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