

This report is to supersede report GZ1009106378/CHEM.

Client's Name : PT. HUMIGARD INDONESIA  
Client's Address : JALAN KEMBANG KENCANA A2 NO.2D, JAKARTA BARAT 11620 INDONESIA

SGS Ref No. : GZHG1009015134CO  
Product Name : HUMICO MOISTURE ABSORBER, DESICCANT  
End Uses : DESICCANT  
Composition/Ingredient : Calcium Chloride (55.0%); Modified Starch (30.0%); Natural Starch (15.0%)  
Job Receiving Date : SEP 13, 2010  
Preparation Period : SEP 13, 2010 TO SEP 16, 2010

**Service Requested**

Material Safety Data Sheet for the Product

**SUMMARY**

The contents and format of this MSDS are in accordance with 29 CFR 1910.1200(g).

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Signed for and on behalf of  
SGS-CSTC Ltd.



Allen Xie  
Approved Signatory

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**Material Safety Data Sheet**

Printing date 09/29/2010

Reviewed on 09/16/2010

**1 Identification of substance**

- **Product details**
- **Trade name:** HUMICO MOISTURE ABSORBER, DESICCANT
- **Article number:** Not available
- **Application of the substance / the preparation:** DESICCANT
- **Manufacturer/Supplier:**  
PT. HUMIGARD INDONESIA  
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- **Reference Number:** GZHG1009015134CO; GZ1009106378A/CHEM

**2 Composition/Data on components**

· <b>Chemical characterization</b>	
· <b>Description:</b> Mixture of the substances listed below with nonhazardous additions.	
· <b>Dangerous components:</b>	
Calcium Chloride	55.0%
· <b>Non-dangerous components:</b>	
Natural Starch	15.0%
Modified Starch	30.0%
· <b>Remark:</b>	
<i>Note: For confidentiality of formula, some information of components is not listed in the above table. Any require, please contact manufacturer/supplier.</i>	

**3 Hazards identification**

- **Hazard description:**



Irritant

- **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of international guideline.

Irritating to eyes.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 1  
Reactivity = 0

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Trade name: HUMICO MOISTURE ABSORBER, DESICCANT

## · HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

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## 4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

## 5 Fire fighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Pick up mechanically.
- **Additional information:** See Section 7 for information on safe handling.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

### Modified Starch

PEL (USA)	15*5*** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	10*5*** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	10 mg/m <sup>3</sup>
WEL (Great Britain)	10*4*** mg/m <sup>3</sup> *total inhalable **respirable

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Coarse
<b>Color:</b>	White
<b>Odor:</b>	NIL

**Change in condition**

<b>Melting point/Melting range:</b>	Not available
<b>Boiling point/Boiling range:</b>	Not available

**Flash point:**

Not available

**Flammability (solid, gaseous):**

Not available

**Ignition temperature:**

Not available

**Decomposition temperature:**

Not available

**Auto igniting:**

Product is not selfigniting.

**Danger of explosion:**

Product does not present an explosion hazard.

**Explosion limits:**

<b>Lower:</b>	Not available
<b>Upper:</b>	Not available

**Oxidizing properties**

Not available

**Density:**

Not available

**Relative density**

Not available

**Vapour density**

Not available

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**Trade name: HUMICO MOISTURE ABSORBER, DESICCANT**

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<b>· Evaporation rate</b>	Not available
<b>· Solubility in / Miscibility with Water:</b>	Not available
<b>· pH-value:</b>	Not available
<b>· Segregation coefficient (n-octanol/water):</b>	Not available
<b>· Viscosity:</b> <b>Dynamic:</b>	Not available.

**10 Stability and reactivity**

- Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- Materials to be avoided:** Not available
- Dangerous reactions** No dangerous reactions known.
- Dangerous products of decomposition:** No dangerous decomposition products known.

**11 Toxicological information****· Acute toxicity:****· LD/LC50 values that are relevant for classification:****Calcium Chloride**

Oral LD50 1000 mg/kg (rat)

**· Primary irritant effect:**

- on the skin:** No irritant effect.
- on the eye:** Irritating effect.

**· Sensitization:** No sensitizing effects known.**· Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

**12 Ecological information****· Additional ecological information:****· General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**13 Disposal considerations****· Product:****· Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**· Uncleaned packagings:****· Recommendation:** Disposal must be made according to official regulations.

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<b>. Cancerogenity categories</b>
<b>. EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
<b>. IARC (International Agency for Research on Cancer)</b>
None of the ingredients is listed.
<b>. NTP (National Toxicology Program)</b>
None of the ingredients is listed.
<b>. TLV (Threshold Limit Value established by ACGIH)</b>
Modified Starch
<b>. NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.
<b>. OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

**. Product related hazard informations:****. Hazard symbols:**

Irritant

**. Risk phrases:**

Irritating to eyes.

**. Safety phrases:**

Keep out of the reach of children.

Do not breathe dust.

If swallowed, seek medical advice immediately and show this container or label.

Dispose of this material and its container to hazardous or special waste collection point.

**16 Other information**

\*\*\*\*\*  
 The contents and format of this MSDS/SDS are in accordance with 29 CFR 1910.1200(g)

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End of document

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