



MSDS Report

No.: GZ1111140849/CHEM

Date: NOV 17, 2011

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SHENZHEN BALANCE STARS ELECTRONIC CO.,LTD
4F,6A,JINNAN INDUSTRY BUJI LUOGANG SHENZHEN

SGS Job No. : CP11-007830-SZ
Sample Name : HEATSINK COMPOUNDS
End Uses : Thermal conductor
Composition/Ingredient of sample (as per client submission) : See section 2 Composition/information on ingredients on the MSDS report
Job Receiving Date : NOV 11, 2011
Last Information Date : NOV 15, 2011
MSDS Preparation Period : NOV 11, 2011 TO NOV 16, 2011

Service Requested : Material Safety Data Sheet (MSDS) for the sample with submitted composition.

Summary : As per request, the contents and formats of the MSDS are prepared in accordance with US Regulations Relating to Labor 29 CFR 1910.1200 (g), and is provided per attached.

Signed for and on behalf of
SGS-CSTC Ltd.

Allen Xie
Approved Signatory

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Material Safety Data Sheet

Printing date 11/17/2011

Reviewed on 11/15/2011

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** HEATSINK COMPOUNDS
- **Article number:** Not available
- **Application of the substance / the preparation:** Thermal conductor
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** SHENZHEN BALANCE STARS ELECTRONIC CO.,LTD
- **Name:** Mr. Lin
- **Full address:** 4F,6A,JINNAN INDUSTY BUJI LUOGANG SHENZHEN
- **Phone number:** +86-755-25808260
- **FAX:** +86-755-25684336
- **Further information obtainable from:** SHENZHEN BALANCE STARS ELECTRONIC CO.,LTD
- **Emergency telephone number:** +86-13902941616
- **Email:** Jack1616@163.com
- **Reference Number:** CP11-007830-SZ; GZ1111140849/CHEM.

2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixtrure of the substances listed below with nonhazardous additions.

· Dangerous components:

| | | |
|------------|-----------------|--------|
| 63148-62-9 | silicone oil | 54.57% |
| 1314-13-2 | zinc oxide | 18.14% |
| 409-21-2 | silicon carbide | 9.63% |

· Non-dangerous components:

| | | |
|----------|-------------------|--------|
| 471-34-1 | calcium carbonate | 17.66% |
|----------|-------------------|--------|

· Remark:

silicone oil (CAS No. :63148-62-9)

Remark: Silicone compounds

calcium carbonate (CAS No. :471-34-1)

Remark: Carbon compounds

zinc oxide (CAS No. :1314-13-2)

Remark: Metal oxide compounds

silicon carbide (CAS No. :409-21-2)

Remark: Diamond powder compounds

3 Hazards identification

- **Classification of the substance or mixture**
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of international guideline.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· Label elements

- **Code letter and hazard designation of product:**



Irritant

Dangerous for the environment

- **Risk phrases:**

Irritating to eyes.

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Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

Keep out of the reach of children.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

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

- **Classification system:**

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



Health = 1

Fire = 0

Reactivity = 0

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



HEALTH 1 Health = 1

FIRE 0 Fire = 0

REACTIVITY 0 Reactivity = 0

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately rinse with water.

- **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 Firefighting measures

- **Suitable extinguishing agents:**

CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.

- **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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- **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.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/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:**

471-34-1 calcium carbonate

| | |
|-----------|--|
| PEL (USA) | 15* 5** mg/m ³ *total dust **respirable fraction |
| REL (USA) | 10* 5** mg/m ³ *total dust **respirable fraction |
| TLV (USA) | TLV withdrawn |

409-21-2 silicon carbide

| | |
|---------------------|--|
| PEL (USA) | 15* 5** mg/m ³ fibrous dust: *total dust **respirable fraction |
| REL (USA) | 10* 5** mg/m ³ *total dust **respirable fraction |
| TLV (USA) | 10 I* 3 R* mg/m ³ E* 0.1 f/cc** *nonfibrous **fibrous forms |
| WEL (Great Britain) | 10* 4** mg/m ³ *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.
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.

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· Eye protection:



Tightly sealed goggles



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11 Toxicological information· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****63148-62-9 silicone oil**

Oral LD50 >17000 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rabbit)

1314-13-2 zinc oxide

Oral LD50 > 5000 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· **Persistence and degradability** No further relevant information available.· **Bioaccumulative potential** No further relevant information available.· **Remark:** Toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

13 Disposal considerations· **Waste treatment methods**· **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.**14 Transport information**· **UN-Number**· **DOT, ADR, IMDG, IATA** Not applicable· **UN proper shipping name**· **DOT, ADR, IMDG, IATA** Not applicable· **Transport hazard class(es)**· **DOT, ADR, IMDG, IATA**· **Class**

Not applicable

· **Label**

Not applicable

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- | | |
|--|-----------------------------------|
| · Packing group · DOT, ADR, IMDG, IATA | Not applicable |
| · Environmental hazards: · Marine pollutant: | Not applicable No |
| · Special precautions for user · Danger code (Kemler): | Not applicable. Not applicable |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

1314-13-2 | zinc oxide

II

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

409-21-2 | silicon carbide

A2

· **MAK (German Maximum Workplace Concentration)**

409-21-2 | silicon carbide

2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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

Irritant
Dangerous for the environment

· Risk phrases:*Irritating to eyes.**Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.***· Safety phrases:***Keep out of the reach of children.**Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).**Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.**If swallowed, seek medical advice immediately and show this container or label.***16 Other information**

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

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