

## Material Safety Data Sheet (MSDS)

## 1. Chemical Product and Company Identification

Product Code : 4190000  
 Product Name : THERM BASE (CATION SEALER)  
 Poisonous and Deleterious Substances Control Law : N.A.P.  
 Type : Emulsion paint  
 Use : Building interior/exterior coating

Name : THERMBLOCK JAPAN Co., LTD.  
 Address : Hoei Building 292 Akasaka 6-2-5 Minato-ku Tokyo Japan  
 Telephone No. : 81-3-5544-8799 Fax.No. : 81-3-5544-8799  
 Email : thermblockjapan@gmail.com  
 HP : //www.thermblock.co.jp  
 Date Prepared : Nov. 27. 2014

## 2. Hazards Identification

{GHS Classification}

{GHS label elements}

NA

NA

{Hazard statements}

Not hazardous under normal conditions or treatment

{Precautionary statements}

&lt;Prevention&gt;

&lt;First Aid measures&gt;

&lt;Storage&gt;

&lt;Disposal&gt;

## 3. Composition, Information On Ingredients

Component and Concentration of Hazardous Substance

| No. Components Name | CAS No.  | Wt (%) | P R T R | Remark |
|---------------------|----------|--------|---------|--------|
| 1) Isopropanol      | 67-63-0  | 0.5    |         |        |
| 2) Ethylene Glycol  | 107-21-1 | 0.5    |         |        |
| 3) Acrylic emulsion |          | 49.5   |         |        |
| 4) Water            |          | 49.5   |         |        |
| (Element Name)      |          |        |         |        |
| None                |          |        |         |        |

\* In case of the same No. in elements and compounds, use the content of elements for PRTR calculation.

## 4. First Aid Measures

Inhalation

- If disorder occurs for inhalation of vapor or gas, remove to fresh air and keep at rest in a position comfortable for breathing. If feels unwell, call a doctor/physician.

Skin Contact

- Wipe quickly clinging matter with clean cloth.
- Flush with plenty of water and soap. Do not use thinner or solvent.
- Get medical attention, with "SDS," if symptom or pain persists.

Eye Contact

- Flush immediately with plenty of clean water for 15 minutes or more.
- Consult physician with "SDS" as soon as possible.

Ingestion

- If one swallows accidentally, immediately rest and consult physician with "SDS."
- Avoid forcing to vomit. Do not make swallow vomit.
- Avoid forcing to vomit. without physician's instruction.

Protection of a person taking a step temporarily

- Wear proper protectors (safety goggles, respirator, gloves, etc.). Well ventilated.

---

## 5. Fire Fighting Measures

|                            |                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------|
| Extinguishing Media        | All extinguishers .                                                                                              |
| Prohibited extinguisher    | None                                                                                                             |
| Fire Fighting Instructions | <ul style="list-style-type: none"><li>• Fight fire with normal precautions in case of peripheral fire.</li></ul> |

---

## 6. Accidental Release Measures

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | <ul style="list-style-type: none"><li>• Wear proper protectors (gloves, respirator, safety goggles, apron, etc.).</li><li>• Prohibit the outskirts from an entrance and don't bring it close anyone other than the person concerned and prevent a second disaster.</li></ul>                                                                                                                                                                          |
| Ecological information                                              | <ul style="list-style-type: none"><li>• Take precautions so as not to pollute rivers, lakes, etc.</li></ul>                                                                                                                                                                                                                                                                                                                                           |
| Methods and materials for containment and clean up                  | <ul style="list-style-type: none"><li>• Recollect leak in container and keep in safety place with the container closed.</li><li>• Dispose of waste or clinging matter according to related regulations.</li><li>• Recollect leak with a scoop or a waste. I prevent an outflow by laying earth on the ground in a mass outflow. There is danger that washing with water causes discharge to rivers. environmental pollution and is careful.</li></ul> |

---

## 7. Handling and Storage

|          |                                                                                                                                                                                                                                            |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | <ul style="list-style-type: none"><li>• Handle in well ventilated area and close tightly container with closer necessarily during and after use.</li><li>• Close tightly container with closer necessarily during and after use.</li></ul> |
| Storage  | <ul style="list-style-type: none"><li>• Avoid direct sunlight.</li><li>• Store in good ventilation.</li></ul>                                                                                                                              |

---

## 8. Exposure Controls and Personal Protection

| No. | Components Name | C.C  | ACGIH(TLV-TWA) |
|-----|-----------------|------|----------------|
| 1)  | Isopropanol     | 200P | 400P           |
| 2)  | Ethylene Glycol |      |                |

\*Sing : P : ppm M:mg/m3 C.C : Control Criteria DS : Skin damage CR : Corrosive FT : Fish Toxicity

|                             |                                                                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment                   | <ul style="list-style-type: none"><li>• In handling for long time, use equipment devised so that sufficient ventilation can be ensured and exposure to exhaust gas can be avoided.</li></ul> |
| Respiration and Ventilation | <ul style="list-style-type: none"><li>• Wear a suitable mask when spray.</li></ul>                                                                                                           |
| Hand protection             | <ul style="list-style-type: none"><li>• Wear gloves impervious to organic solvent and chemical.</li></ul>                                                                                    |
| Eye protection              | <ul style="list-style-type: none"><li>• Wear safety goggles.</li></ul>                                                                                                                       |
| Skin and body protection    | <ul style="list-style-type: none"><li>• Wear suitable clothing to avoid direct contact of skin when handle.</li></ul>                                                                        |
| Other                       | The clothing should be chemical-proof.                                                                                                                                                       |

---

## 9. Physical and Chemical properties

|                                         |                      |                                       |
|-----------------------------------------|----------------------|---------------------------------------|
| Physical state                          |                      |                                       |
| Appearance                              | : Liquid             |                                       |
| Color                                   | : Milky white        |                                       |
| Odor                                    | : Emulsionlike smell |                                       |
| pH.                                     | : 4.5                |                                       |
| Boiling Point                           | : 100 Degrees C      | Melting point/freezing point : N. AV. |
| Explosion Limit                         | : N. AV.             | Flash Point : N. AV.                  |
| Vapor Pressure                          | : N. AV.             |                                       |
| Relative density                        | : N. AV.             | Solubility : N. AV.                   |
| Density                                 | : 1.048g/cm3         |                                       |
| Partition coefficient : n-octanol/water | : N. AV.             |                                       |
| Ignition Point                          | : N. AV.             | Decomposition temperature : N. AV.    |
| Odour Threshold                         | : N. AV.             | Flammability (solid, gas) : N. AV.    |
| Evaporation rate                        | : N. AV.             |                                       |
| Other                                   | :                    |                                       |

---

## 10. Stability and Reactivity

### Stability

Additional Information : Does not react under normal conditions

Conditions to avoid : N. AV.

Incompatible materials : N. AV.

Hazardous decomposition products

: N. AV.

Other hazardous information : Avoid leaving cloth, paper, brush, or roller which contains the paint, or its dust to accumulate or to be made round.

---

## 11. Toxicological Information

| No. Components | Name            | LD50M | LD50S | Sk | Ey | Br | Mu | Ca | Re | Si |   | Rp | As | EtC |
|----------------|-----------------|-------|-------|----|----|----|----|----|----|----|---|----|----|-----|
| 1)             | Isopropanol     | 3437  | 4059  |    | 2A |    |    |    | 2  | 1  | 3 | 2  | 2  |     |
| 2)             | Ethylene Glycol | 4000  | 10600 | 3  | 2B |    |    |    |    | 1  |   | 1  |    |     |

Sing : LD50M : mouth (oral-rat) mg/kg LD50S : skin (rabbit) mg/kg

Sk : Skin corrosion/irritation Ey : Serious eye damage/eye irritation

Br : Respiratory sensitization/Skin sensitization

Mu : Germ cell mutagenicity Ca : Carcinogenicity Re : Reproductive toxicity

Si : Specific target organ systemic toxicity-Single exposure

Rp : Specific target organ systemic toxicity-Repeated exposure

As : Aspiration hazard

Other hazardous information : May cause rash or eruption in contact with skin.

---

## 12. Ecological Information

- Take cautions in handling because it may contaminate environment When it leaks or spills or it is dumped. Especially, take cautions for product or rinsing water not to flow into the ground, river or ditch.

Ecotoxicity : N. AV.

Persistence and degradability : N. AV.

Bioaccumulative potential : N. AV.

Mobility in soil : N. AV.

---

## 13. Disposal Considerations

### Residual waste

- Let authorized industrial waste handling agent dispose of paint waste, container waste, etc. by making service agreement.
- Do not dispose of waste water after cleaning container, equipment, tool, etc. into the ground and drainage ditch without treatment.
- Dispose of waste from effluent treatment, incineration, etc., complying to regulations or acts relating to waste treatment or cleaning or let special handling agent dispose of them.

### Contaminated container and packing

- Dispose of used container after emptied completely.
- Let authorized industrial waste handling agent by making service agreement.

|                               |                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14. Transport Information     |                                                                                                                                                                                                                                                                                                                                                                   |
| General                       | <ul style="list-style-type: none"> <li>• Accord to the description in "Precautions in Handling " and "Precautions in Storing . " Make sure that container does not leak and be sure to prevent it from collapsing by loading with it so that it may not overturn or fall down or sustain damage.</li> </ul>                                                       |
| Domestic regulation           |                                                                                                                                                                                                                                                                                                                                                                   |
| Land Transportation           | <ul style="list-style-type: none"> <li>• Accord to each transportation method specified in "Fire Service Law", "Industrial Safety and Health Law" or "Poisonous and Deleterious Substances Control Law", when applicable to any of them.</li> <li>• The load sending person the conveyance note book ( Yellow card etc. ) delivers to the transporter.</li> </ul> |
| Maritime Transportation       | <ul style="list-style-type: none"> <li>• Accord to requirements specified in "the Vessels Safety Law (the Ship Safety Act)".</li> </ul>                                                                                                                                                                                                                           |
| Air Transportation            | <ul style="list-style-type: none"> <li>• Accord to requirements specified in "the Aviation Act."</li> </ul>                                                                                                                                                                                                                                                       |
| Other                         |                                                                                                                                                                                                                                                                                                                                                                   |
| International regulation      |                                                                                                                                                                                                                                                                                                                                                                   |
| U.N. No.                      | : N.A                                                                                                                                                                                                                                                                                                                                                             |
| UN transporter shipping) name | : N.AV.                                                                                                                                                                                                                                                                                                                                                           |
| IMDG                          | : N.AV.                                                                                                                                                                                                                                                                                                                                                           |
| Packing group                 | : N.AV.                                                                                                                                                                                                                                                                                                                                                           |

|                            |                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------|
| 15. Regulatory Information | Non-dangerous Substances Related to "Fire Service Law"<br>"Industrial Safety and Health Law": Article 57-2 |
|----------------------------|------------------------------------------------------------------------------------------------------------|

|                       |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16. Other Information |                                                                                                                                                                                                                                                                                                                                                      |
| Literatures           | <ul style="list-style-type: none"> <li>• "Raw Material Data Base", edited by Japan Paint Manufacturers Association</li> <li>• "GHS Compliant SDS / Labelling Guidebook for mixtures (paints)"<br/>Japan Paint Manufacturers Association</li> <li>• SAX' s"Dangerous Properties of Industrial Materials", Van Nostrand Reinhold, New York.</li> </ul> |

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks | <ul style="list-style-type: none"> <li>• This "SDS" is based on relevant information which has been available. The information or assessment on safety of the product is not necessarily satisfactory for the reason that it is assessed from that of relevant individual materials. Handle safely the product or material on your responsibility according to this "SDS".</li> <li>• This product contains volatile chemicals.<br/>In case of hand-over with a short drying time after painting, please instruct the client to take extra care for the safety.<br/>For example, For those facilities that are used by a large number of the general public, please display the state such as "wet paint" with in signboards etc. and avoid approach of the person with multiple chemical sensitivity and allergic predisposition to the painted area.</li> <li>• This "SDS" is subject to change without notice.</li> <li>• The content, physical datum or chemical datum of the product in the "SDS" is to be an indicator for the relevant product quality or it has not anything decisive to do with the quality.</li> <li>• This safety information stems from standards of Japan Paint Manufacturers Association with laws of the government but not from laws of local governments. When handled, exhausted and wasted, accord to relevant laws of local governments as required.</li> </ul> |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|