1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SikaFloor® Marine PU-Red Part B
Product code : 000000210439
Type of product : liquid

Recommended use of the chemical and restrictions on use
Product use : Polyurethane coating, Product is not intended for consumer use

Manufacturer or supplier’s details
Company : Sika (Thailand) Limited
700/37 Moo. 5  Amata Nakorn Estate
Bangna-Trad Km.57
Tambol Klong Tamhru
Muang District
Chonburi 20000
Thailand

Telephone : +66 3810 9500
Emergency telephone number : +66 3821 4270-85
Telefax : +66 3821 4286
E-mail address : Sikathai@th.sika.com

2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Inhalation) : Category 4
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2A
Respiratory sensitisation : Category 1
Skin sensitisation : Category 1
Carcinogenicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)
Specific target organ toxicity - repeated exposure (Inhalation) : Category 2
SAFETY DATA SHEET

SikaFloor® Marine PU-Red Part B

Version 1.0

MSDS Number: 000000210439
Revision Date: 2016/01/21

GHS Label element
Hazard pictograms

Signal word: Danger

Hazard statements: H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements: Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.
Other hazards which do not result in classification
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : Isocyanates

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphenylmethanediisocyanate, isomeres and homologues</td>
<td>9016-87-9</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
<tr>
<td>4,4'-methylenediphenyl diisocyanate</td>
<td>101-68-8</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>diphenylmethane-2,4'-diisocyanate</td>
<td>5873-54-1</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
<tr>
<td>2,2'-methylene diphenyl diisocyanate</td>
<td>2536-05-2</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Induce vomiting immediately and call a physician.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : irritant effects
sensitising effects
Asthmatic appearance
Cough
Respiratory disorder
Allergic reactions
Excessive lachrymation
Headache
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician: Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Hazardous combustion products: No hazardous combustion products are known

Specific extinguishing methods: Standard procedure for chemical fires.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Deny access to unprotected persons.

Environmental precautions: Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Avoid formation of aerosol. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms. Follow standard hygiene measures when handling chemical products.

Conditions for safe storage: Store in original container. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-methylenediphenyl diisocyanate</td>
<td>101-68-8</td>
<td>CEIL</td>
<td>0.02 ppm 0.2 mg/m³</td>
<td>TH OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.005 ppm</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: viscous
Colour : brown

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Melting point/range / Freezing point : No data available

Boiling point/boiling range : No data available

Flash point : > 220 °C (> 428 °F)
Method: closed cup

Evaporation rate : No data available

Flammability : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : ca. 1.2 g/cm³ (20 °C (68 °F) (j))

Solubility(ies)
Water solubility : insoluble

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : > 20.5 mm²/s (40 °C)

Molecular weight : No data available

10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : The product is chemically stable.

Possibility of hazardous reac- : Stable under recommended storage conditions.
11. TOXICOLOGICAL INFORMATION

Acute toxicity
Harmful if inhaled.

Components:

Diphenylmethanediisocyanate, isomers and homologues:
- Acute oral toxicity: LD50 Oral (Rat): > 10,000 mg/kg
- Acute inhalation toxicity: Acute toxicity estimate: 1.5 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: Expert judgement

Acute dermal toxicity: LD50 Dermal (Rabbit): > 9,400 mg/kg

4,4’-methylenediphenyl diisocyanate:
- Acute inhalation toxicity: Acute toxicity estimate: 1.5 mg/l
  Test atmosphere: dust/mist
  Method: Expert judgement

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Suspected of causing cancer.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
May cause respiratory irritation.

STOT - repeated exposure
May cause damage to organs through prolonged or repeated exposure if inhaled.

Aspiration toxicity
Not classified based on available information.
12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Additional ecological information
: There is no data available for this product.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues
: Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging
: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulation
UNRTDG
Not dangerous goods
IATA-DGR
Not dangerous goods
IMDG-Code
Not dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
International Chemical Weapons Convention (CWC)
: Not applicable

Schedules of Toxic Chemicals and Precursors

Hazardous Substance Act B.E. 2535
: 4,4'-methylene diphenyl diisocyanate
Emergency Decree on Controlling the Use of Volatile Substances B.E. 2533 : Not applicable

Notification of Ministry of Interior on Working Safety Relating to Hazardous Chemicals B.E. 2534 : Diphenylmethanediisocyanate, isomers and homologues
4,4'-methylenediphenyl disocyanate
diphenylmethane-2,4'-diisocyanate
2,2'-methylenediphenyl disocyanate

16. OTHER INFORMATION

Date format : yyyy/mm/dd

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.