1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sikaflex®-254
Product code : 000000118366
Type of product : paste

Recommended use of the chemical and restrictions on use
Product use : Sealant/adhesive, For professional users only.

Manufacturer or supplier's details
Company : Sika Korea Ltd.
724, Anseongmatchum-daero
Miyang-myeon
Anseong-si
Gyeonggi-do
Korea
Telephone : +82-31-8056-7777
Emergency telephone number : +82-31-8056-7777
Telefax : +82-31-8056-7788
E-mail address : ehs@kr.sika.com

2. HAZARDS IDENTIFICATION

GHS Classification
Serious eye damage/eye irritation : Category 1
Carcinogenicity : Category 2

GHS label elements
Hazard pictograms :

Signal word : Danger
Hazard statements : H318 Causes serious eye damage.
H351 Suspected of causing cancer.

Precautionary statements : Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P308 + P313 IF exposed or concerned: Get medical advice/attention.

**Storage:**
P405 Store locked up.

**Disposal:**
P501 Dispose of contents and container according to wastes control act.

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**Other hazards which do not result in classification**
None known.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance / Mixture** : Mixture

**Components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-4,4'-methylenebis[N'butyl(di-N-butyldi-N-butylurea)]</td>
<td>77703-56-1</td>
<td></td>
<td>&gt;= 2.5 - &lt; 5</td>
</tr>
<tr>
<td>4,4'-methylenebis[N'-butyl-4,4'-methylenebis[N'butyl(di-N-butyldi-N-butyldiisocyanate)]</td>
<td>101-68-8</td>
<td></td>
<td>0 - &lt; 1</td>
</tr>
<tr>
<td>4,4'-Methylenebis[N'-butyl-4,4'-methylenebis[N'butyl(di-N-butyldi-N-butyldiisocyanate), oligomers)</td>
<td>25686-28-6</td>
<td></td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane</td>
<td>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane</td>
<td>2530-83-8</td>
<td>0 - &lt; 1</td>
</tr>
<tr>
<td>bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate</td>
<td>bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate</td>
<td>41556-26-7</td>
<td>&gt;= 0.025 - &lt; 0.25</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.

In case of eye contact :
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.

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.

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

If swallowed :
Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

Most important symptoms and effects, both acute and delayed :
sensitising effects
Allergic reactions
Excessive lachrymation
See Section 11 for more detailed information on health effects and symptoms.
Causes serious eye damage.
Suspected of causing cancer.

Notes to physician :
Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable and unsuitable extinguishing media

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.

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:
Do not breathe vapours or spray mist. 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. Follow standard hygiene measures when handling chemical products.

Conditions for safe storage:
Keep container tightly closed in a dry and well-ventilated place. 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’-methylene diphenyl diisocyanate</td>
<td>101-68-8</td>
<td>TWA</td>
<td>0.005 ppm</td>
<td>KR OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Further information: Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.005 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>4,4’-Methylene diphenyl diisocyanate, oligomers</td>
<td>25686-28-6</td>
<td>TWA</td>
<td>0.005 ppm</td>
<td>KR OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Further information: Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1</td>
<td></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.

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

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.

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

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: paste
Colour: various
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: > 101 °C (> 214 °F)  
   Method: closed cup
Evaporation rate: No data available
Flammability: No data available

Upper/Lower explosion limit: No data available
Upper explosion limit: No data available
10. STABILITY AND REACTIVITY

Chemical stability and possibility of hazardous reactions: No dangerous reaction known under conditions of normal use. The product is chemically stable. No hazards to be specially mentioned.

Conditions to avoid: No data available

Incompatible materials: No data available

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Health hazard information

Acute toxicity

Components:

- **Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-**
  
  Acute oral toxicity: LD50 Oral (Rat): > 2,000 mg/kg
  Method: OECD Test Guideline 401

- **4,4'-methylene diphenyl diisocyanate:**
  
  Acute oral toxicity: LD50 Oral (Rat): > 4,700 mg/kg
  Method: OECD Test Guideline 401
<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
<td>Test atmosphere: dust/mist, Method: Expert judgement</td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>LD50 Oral (Rat): &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Acute toxicity estimate: 1.5 mg/l, Method: Expert judgement</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 Dermal (Rabbit): &gt; 9,400 mg/kg</td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>LC50 (Rat): &gt; 5.3 mg/l</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Test atmosphere: dust/mist, Exposure time: 4 h</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 Dermal (Rabbit): 4,248 mg/kg</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td></td>
</tr>
<tr>
<td>Urea,N,N'-(methylenedi-4,1-phenylene)bis[N'-butyl-</td>
<td>Species: Bacteria, Method: OECD Test Guideline 471, Result: negative</td>
</tr>
<tr>
<td>Genotoxicity in vivo</td>
<td>Method: TA98, TA100, TA1535, TA1537</td>
</tr>
<tr>
<td>4,4'-methylene diphenyl diisocyanate</td>
<td>Species: Bacteria, Method: OECD Test Guideline 471, Result: negative</td>
</tr>
<tr>
<td>Genotoxicity in vivo</td>
<td>Method: TA98, TA100, TA1535, TA1537</td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:
Toxicity to fish: LC50 (Cyprinus carpio (Carp)): 55 mg/l
Exposure time: 96 h

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.

Disposal precautions
Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good
UN number: Not applicable
Proper shipping name: Not applicable
Class: Not applicable
Subsidiary risk: Not applicable
Packing group: Not applicable
Labels: Not applicable
EmS Code: Not applicable
Marine pollutant: Not applicable

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

National Regulations
Refer to section 15 for specific national regulation.

Special precautions for user
Not applicable

15. REGULATORY INFORMATION

National regulatory information

Regulation under the Occupational Safety and Health Act

Harmful Substances Prohibited from Manufacturing
Not applicable

Harmful Substances Required Permission for Manufacture
Not applicable

Hazardous substances requiring management
Not applicable

Controlled Substances Subject to Environment Monitoring
Not applicable

Controlled Substances Subject to Health Examination
Not applicable

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

Toxic Chemicals
Not applicable

Restricted Chemicals
Not applicable

Prohibited Chemicals
Not applicable

Toxic Release Inventory
Not applicable

Accident Precaution Chemicals
Not applicable
International Chemical Weapons Convention (CWC): Not applicable

Schedules of Toxic Chemicals and Precursors

Wastes Control Act
Industrial waste
Follow article 13 of the act to dispose the product waste
Other requirements in domestic and other countries

The components of this product are reported in the following inventories:

REACH : Not in compliance with the inventory
ENCS : Not in compliance with the inventory
ISHL : Not in compliance with the inventory
KECI : Not in compliance with the inventory

16. OTHER INFORMATION

Issuing date : 12.06.2019

Revision number and date
Number of Revision : 0.1
Revision Date : 12.06.2019
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.