SECTION 1: Identification of the hazardous chemical and of the supplier

Product name : Sikadur®-43 HS Part B
Product code : 000000606376
Type of product : liquid

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

Manufacturer or supplier’s details
Lot 689 Nilai Industrial Estate
71800 Nilai
Telephone : +60 6799 1762
Telefax : +60 6799 1980
E-mail address : EHS@my.sika.com
Emergency telephone number : -
Contact point : 

SECTION 2: Hazards identification

Classification of the hazardous chemical
Skin corrosion/irritation : Category 1B
Serious eye damage/eye irritation : Category 1
Skin sensitisation : Category 1
Carcinogenicity : Category 2
Aspiration hazard : Category 1
Hazardous to the aquatic environment - chronic hazard : Category 2

Label elements
Hazard pictograms :

Signal word : Danger
Hazard statements: H304 May be fatal if swallowed and enters airways. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H351 Suspected of causing cancer. H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
- **Prevention:**
  - P264 Wash skin thoroughly after handling.
  - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
  - P281 Use personal protective equipment as required.
- **Response:**
  - P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
  - P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
  - P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
  - P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
  - 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.

Other hazards which do not result in classification
None known.

SECTION 3: Composition and information of the ingredients of the hazardous chemical

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Mixture</th>
</tr>
</thead>
</table>

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C10-C13, aromatic, &gt;1% Naphthalene</td>
<td>64742-94-5</td>
<td>&gt;= 30 - &lt; 60</td>
</tr>
<tr>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>2855-13-2</td>
<td>&gt;= 10 - &lt; 25</td>
</tr>
<tr>
<td>3,6-diazaoctanethylenediamin</td>
<td>112-24-3</td>
<td>&gt;= 10 - &lt; 25</td>
</tr>
<tr>
<td>2,4,6-tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>&gt;= 10 - &lt; 30</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>100-51-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight &lt;= 700)</td>
<td>25068-38-6</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
<tr>
<td>naphthalene</td>
<td>91-20-3</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
<tr>
<td>bis[(dimethylamino)methyl]phenol</td>
<td>71074-89-0</td>
<td>&gt;= 1 - &lt; 3</td>
</tr>
<tr>
<td>2-(2-aminoethylamino)ethanol</td>
<td>111-41-1</td>
<td>&lt; 0.3</td>
</tr>
<tr>
<td>2-piperazin-1-ylethylamine</td>
<td>140-31-8</td>
<td>&gt;= 0.025 - &lt; 0.25</td>
</tr>
<tr>
<td>3,6,9-triazaundecamethylenediamine</td>
<td>112-57-2</td>
<td>&gt;= 0.025 - &lt; 0.25</td>
</tr>
<tr>
<td>2,2'-iminodiethylamine</td>
<td>111-40-0</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>
SECTION 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. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

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.

If swallowed: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed: Health injuries may be delayed. Risk of serious damage to the lungs (by aspiration). Corrosive effects. Sensitising effects. Aspiration may cause pulmonary oedema and pneumonitis. Allergic reactions. Dermatitis. See Section 11 for more detailed information on health effects and symptoms. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Causes severe burns.

Notes to physician: Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: No hazardous combustion products are known.

**Special protective equipment and precautions for fire-fighters**

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

Specific extinguishing methods: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 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.

**SECTION 7: Handling and storage**

Handling

Precautions for safe handling

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.
Storage

Conditions for safe storage, including any incompatibilities

Conditions for safe storage:
- Store in original container.
- Keep container tightly closed in a dry and 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.

SECTION 8: Exposure controls and personal protection

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>naphthalene</td>
<td>91-20-3</td>
<td>TWA</td>
<td>10 ppm 52 mg/m³</td>
<td>MY PEL</td>
</tr>
<tr>
<td>2,2'-iminodiethylamine</td>
<td>111-40-0</td>
<td>TWA</td>
<td>1 ppm 4.2 mg/m³</td>
<td>MY PEL</td>
</tr>
</tbody>
</table>

Further information: Skin

TWA 1 ppm ACGIH

Individual protection measures, such as personal protective equipment

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

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

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.

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.

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.
SECTION 9: Physical and chemical properties

Appearance : liquid
Colour : dark yellow
Odour : amine-like
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 : > 93.3 °C (> 199.9 °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 : 2 hPa (2 mmHg)
Relative vapour density : No data available
Density : 0.98 g/cm³ (20 °C (68 °F) (l))
Solubility(ies)
   Water solubility : No data available
   Solubility in other solvents : No data available
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 : > 7 mm²/s (40 °C)
Explosive properties : No data available
Molecular weight : No data available
SECTION 10: Stability and reactivity

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

Chemical stability: The product is chemically stable.

Possibility of hazardous reactions: Stable under recommended storage conditions.

Conditions to avoid: No data available

Incompatible materials: No data available

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Information on likely routes of exposure: None known.

Acute toxicity: Not classified based on available information.

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>1,030 mg/kg</td>
<td>&gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 (Rat): &gt; 5.01 mg/l Exposure time: 4 h Test atmosphere: dust/mist</td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3,6-diazaoctanethylenediamine:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>1,716 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>1,465 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

benzyl alcohol:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>1,620 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 (Rat): &gt; 4.178 mg/l Exposure time: 4 h Test atmosphere: dust/mist</td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>&gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>&gt; 20,000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

2-piperazin-1-ylethylamine:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50 Oral (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>2,097 mg/kg</td>
</tr>
</tbody>
</table>
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Acute dermal toxicity: LD50 Dermal (Rabbit): ca. 866 mg/kg

3,6,9-triazaundecamethylene diamine:
Acute oral toxicity: LD50 Oral (Rat): 1,716.2 mg/kg
Acute dermal toxicity: LD50 Dermal (Rat): 1,260 mg/kg

2,2’-iminodiethylamine:
Acute oral toxicity: LD50 Oral (Rat): 1,553 mg/kg
Acute inhalation toxicity: LC50 (Rat): 0.071 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
Acute dermal toxicity: LD50 Dermal (Rat): 1,045 mg/kg

Skin corrosion/irritation
Causes severe burns.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory or skin sensitisation
Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: Not classified based on available information.

Components:
3-aminomethyl-3,5,5-trimethylcyclohexylamine:
Assessment: The product is a skin sensitisser, sub-category 1A.
Result: The product is a skin sensitisser, sub-category 1A.

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
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Ecotoxicity

Components:
3-aminomethyl-3,5,5-trimethylcyclohexylamine:
Toxicity to algae  :  ErC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l  
Exposure time: 72 h

3,6-diazaoctanethylenediamin:  
Toxicity to fish  :  LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates  :  EC50 (Daphnia (water flea)): 10 - 100 mg/l  
Exposure time: 48 h
Toxicity to algae  :  EC50 (Pseudokirchneriella subcapitata (green algae)): 10 - 100 mg/l  
Exposure time: 72 h

2,4,6-tris(dimethylaminomethyl)phenol:  
Toxicity to algae  :  EC50 (Scenedesmus capricornutum (fresh water algae)): > 10 - 100 mg/l  
Exposure time: 72 h

benzyl alcohol:  
Toxicity to fish  :  LC50 (Fish): > 100 mg/l  
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates  :  EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h

reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):  
Toxicity to fish  :  LC50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l  
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates  :  EC50 (Daphnia magna (Water flea)): 1.8 mg/l  
Exposure time: 48 h

2-piperazin-1-ylethylamine:  
Toxicity to fish  :  LC50 (Fish): > 100 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  :  An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
SECTION 13: Disposal information

Disposal methods
Waste from residues: The product should not be allowed to enter drains, water courses or the soil. 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.

SECTION 14: Transport information

International Regulations

UNRTDG
UN number: UN 2735
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
Class: 8
Packing group: I
Labels: 8

IATA-DGR
UN/ID No.: UN 2735
Proper shipping name: Amines, liquid, corrosive, n.o.s.
Class: 8
Packing group: I
Labels: 8
Packing instruction (cargo aircraft): 854
Packing instruction (passenger aircraft): 850

IMDG-Code
UN number: UN 2735
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.

Class: 8
Packing group: I
Labels: 8
EmS Code: F-A, S-B
Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.
SECTION 15: Regulatory information

Safety, health, and environmental regulations specific for the hazardous chemical
Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.
International Chemical Weapons Convention (CWC) : Not applicable
Schedules of Toxic Chemicals and Precursors

SECTION 16: Other information

Date format : dd.mm.yyyy

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.

Changes as compared to previous version !