SAFETY DATA SHEET

Sikadur®-51 (B)

Section 1. Identification

GHS product identifier : Sikadur®-51 (B)
Product type : Paste.

Relevant identified uses of the substance or mixture and uses advised against
Product is not intended for consumer use.

Supplier/Manufacturer : Sika Australia Pty. Ltd.
55 Elizabeth Street
(Locked Bag 482 BDC)
Wetherill Park, NSW 2164
Australia

Telephone no.: +61 2 9725 11 45
Fax no. : +61 2 9725 33 30
Emergency telephone number : +61 1800 033 111

Section 2. Hazards identification

Classification of the substance or mixture
SKIN CORROSION/IRRITATION - Category 1C
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
LONG-TERM AQUATIC HAZARD - Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger
Hazard statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid release to the environment. Avoid breathing vapour. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. 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 physician.

Storage : Store locked up. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Date of issue/Date of revision : 05.06.2014. Date of previous issue : No previous validation. Version : 1
Section 2. Hazards identification

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

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

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Not available.

CAS number/other identifiers:

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol, methylstyrenated</td>
<td>10 - &lt;30%</td>
<td>68512-30-1</td>
</tr>
<tr>
<td>2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine</td>
<td>10 - &lt;30%</td>
<td>25513-64-8</td>
</tr>
<tr>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>&lt;10%</td>
<td>2855-13-2</td>
</tr>
<tr>
<td>2,4,6-tris(dimethylaminomethyl)phenol</td>
<td>&lt;10%</td>
<td>90-72-2</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>&lt;10%</td>
<td>100-51-6</td>
</tr>
<tr>
<td>Reaction product of BADGE with IPDA and TMDA</td>
<td>&lt;10%</td>
<td>-</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Section 4. First-aid measures

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.
Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: Causes severe burns. May cause an allergic skin reaction.
Ingestion: May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
- pain
- watering
- redness
Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur
Ingestion: Adverse symptoms may include the following:
- stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

### Extinguishing media

| Suitable extinguishing media | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | None known. |

### Specific hazards arising from the chemical

- In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long-lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

### Hazardous thermal decomposition products

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- metal oxide/oxides

### Special protective actions for fire-fighters

- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code: 2X

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Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

#### For emergency responders

- If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### Environmental precautions

- Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

#### Small spill

- Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### Large spill

- Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and
Section 6. Accidental release measures
Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits
None.

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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Section 8. Exposure controls/personal protection

Skin protection

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state: Paste.
Colour: Black.
Odour: Amine-like.
Odour threshold: Not available.
pH: 11.2
Melting point: Not available.
Boiling point: Not available.
Flash point: Closed cup: 101°C (213.8°F)
 Burning time: Not applicable.
 Burning rate: Not applicable.
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not applicable.
Vapour pressure: 0 kPa (0.075 mm Hg)
Vapour density: Not available.
Density: ~1.7 g/cm³ [20°C (68°F)]
Solubility: Insoluble in the following materials: water
Solubility in water: Not available.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not applicable.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.
Section 10. Stability and reactivity

**Reactivity**
- No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**
- The product is stable.

**Possibility of hazardous reactions**
- Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**
- No specific data.

**Incompatible materials**
- No specific data.

**Hazardous decomposition products**
- Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4(or 2,4,4)-</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>910 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>trimethylhexane-1,6-diamine</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>1100 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>3-aminomethyl-3,5,5</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1030 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>trimethyclohexylamine</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>4.178 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1230 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**
- Not available.

**Sensitisation**
- Not available.

**Mutagenicity**
- Not available.

**Carcinogenicity**
- Not available.

**Reproductive toxicity**
- Not available.

**Teratogenicity**
- Not available.

**Specific target organ toxicity (single exposure)**
- Not available.

**Specific target organ toxicity (repeated exposure)**
- Not available.

**Aspiration hazard**
- Not available.
Section 11. Toxicological information

Information on the likely routes of exposure

Potential acute health effects

**Eye contact**

- Causes serious eye damage.

**Inhalation**

- May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**

- Causes severe burns. May cause an allergic skin reaction.

**Ingestion**

- May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**

- Adverse symptoms may include the following:
  - pain
  - watering
  - redness

**Inhalation**

- No specific data.

**Skin contact**

- Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - blistering may occur

**Ingestion**

- Adverse symptoms may include the following:
  - stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure**

- **Potential immediate effects**
  - Not available.

- **Potential delayed effects**
  - Not available.

**Long term exposure**

- **Potential immediate effects**
  - Not available.

- **Potential delayed effects**
  - Not available.

**Potential chronic health effects**

- Not available.

**General**

- Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity**

- No known significant effects or critical hazards.

**Mutagenicity**

- No known significant effects or critical hazards.

**Teratogenicity**

- No known significant effects or critical hazards.

**Developmental effects**

- No known significant effects or critical hazards.

**Fertility effects**

- No known significant effects or critical hazards.

Numerical measures of toxicity

**Acute toxicity estimates**
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>7136.4 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>21494.5 mg/kg</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>157.8 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4(or 2,4,4)-</td>
<td>Acute EC50 29.5 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td>trimethylhexane-1,6-diamine</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**

Not available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol, methylstyrnated</td>
<td>3.627</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2,2,4(or 2,4,4)-</td>
<td>-0.3</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>trimethylhexane-1,6-diamine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-aminomethyl-3,5,</td>
<td>0.99</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>5-trimethylcyclohexylamine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4,6-tris (dimethylaminomethyl)phenol</td>
<td>0.219</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>0.87</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

Soil/water partition coefficient (K_{oc}) : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
### Section 14. Transport information

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG</td>
<td>UN1759</td>
<td>Corrosive solid, n.o.s. (Trimethylhexamethylenediamines/ Isophoronediamines)</td>
<td>8</td>
<td>III</td>
<td></td>
<td>Hazchem code 2X</td>
</tr>
<tr>
<td>ADR</td>
<td>UN1759</td>
<td>Corrosive solid, n.o.s. (Trimethylhexamethylenediamines/ Isophoronediamines)</td>
<td>8</td>
<td>III</td>
<td></td>
<td>Tunnel code (E)</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN1759</td>
<td>Corrosive solid, n.o.s. (Trimethylhexamethylenediamines/ Isophoronediamines)</td>
<td>8</td>
<td>III</td>
<td></td>
<td>Emergency schedules (EmS) F-A, S-B</td>
</tr>
<tr>
<td>IATA</td>
<td>UN1759</td>
<td>Corrosive solid, n.o.s. (Trimethylhexamethylenediamines/ Isophoronediamines)</td>
<td>8</td>
<td>III</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

PG*: Packing group

### Section 15. Regulatory information

**Safety, health and environmental regulations specific for the product**: No known specific national and/or regional regulations applicable to this product (including its ingredients).

**Standard Uniform Schedule of Medicine and Poisons**: Not regulated.

**Control of Scheduled Carcinogenic Substances**: All components are listed or exempted.

**EU Classification**: C; R34

**R52/53**

**HCS Classification**: Toxic material

Corrosive material

Sensitising material

Target organ effects

### Section 16. Other information

**History**

**Date of printing**: 05.06.2014.

**Date of issue/Date of revision**: 05.06.2014.

**Date of previous issue**: No previous validation.

**Version**: 1

**Key to abbreviations**: ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From
Section 16. Other information

Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

⁻ Indicates information that has changed from previously issued version.

Notice to reader

Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy. MSDS may be obtained from the following website: aus.sika.com

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.