1. Identification

Product name : Sikadur®-51 NS Part B

Supplier : Sika Corporation

Address : 201 Polito Avenue
          Lyndhurst, NJ 07071
          USA
          www.sikausa.com

Telephone : (201) 933-8800

Telefax : (201) 804-1076

Emergency telephone : CHEMTREC: 800-424-9300
                      INTERNATIONAL: 703-527-3887
                      ehs@sika-corp.com

Recommended use of the chemical and restrictions on use : For further information, refer to the product technical data sheet.

2. Hazards identification

GHS Classification

Skin corrosion, Category 1C  : H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1 : H318: Causes serious eye damage.
Skin sensitization, Category 1 : H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1A : H350: May cause cancer.

GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.
                   H317 May cause an allergic skin reaction.
                   H350 May cause cancer.

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 or mist.
                           P272 Contaminated work clothing should not be allowed out of the workplace.
                           P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
                           P281 Use personal protective equipment as required.
Response:
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 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P310 Immediately call a POISON CENTER or doctor/ physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Warning : Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

See Section 11 for more detailed information on health effects and symptoms.

3. Composition/information on ingredients

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>&gt;= 25 - &lt; 50 %</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>&gt;= 5 - &lt; 10 %</td>
</tr>
<tr>
<td>Isophoronediamine</td>
<td>2855-13-2</td>
<td>&gt;= 5 - &lt; 10 %</td>
</tr>
<tr>
<td>2,4,6-tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>&gt;= 2 - &lt; 5 %</td>
</tr>
<tr>
<td>Quartz (SiO2) &lt;5µm</td>
<td>14808-60-7</td>
<td>&gt;= 0 - &lt; 1 %</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.

4. First aid measures

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. Corrosive effects Sensitizing effects Carcinogenic effects

Allergic reactions
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.

Protection of first-aiders : Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.

Notes to physician : Treat symptomatically.

5. Fire-fighting measures

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

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.

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

6. Accidental release measures

Personal precautions, : Use personal protective equipment.
protective equipment and emergency procedures
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.
Local authorities should be advised if significant spillages cannot be contained.

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 safe handling
: 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 sensitization 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
: Prevent unauthorized access.
Store in original container.
Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

Materials to avoid
: no data available

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Basis **</th>
<th>Value</th>
<th>Exposure limit(s)* / Form of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>ACGIH</td>
<td>TWA 0.025 mg/m3</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z-3</td>
<td>TWA 30 mg/m3 / %SiO2+2 total dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z-3</td>
<td>TWA 10 mg/m3 / %SiO2+2 respirable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z-3</td>
<td>TWA</td>
<td></td>
</tr>
</tbody>
</table>


<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>250 mpcf / %SiO2+5 respirable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA P0</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>15 mg/m3</td>
<td>total dust</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>5 mg/m3</td>
<td>respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA P0</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>15 mg/m3</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>OSHA P0</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>5 mg/m3</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>15 mg/m3</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>5 mg/m3</td>
<td>respirable fraction</td>
</tr>
<tr>
<td>Quartz (SiO2) &lt;5µm</td>
<td>14808-60-7</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>0.025 mg/m3</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-3</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>30 mg/m3 / %SiO2+2 total dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA Z-3</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>10 mg/m3 / %SiO2+2 respirable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA Z-3</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>250 mpcf / %SiO2+5 respirable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA P0</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable fraction</td>
</tr>
</tbody>
</table>

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**Basis**
ACGIH. Threshold Limit Values (TLV)
OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)
OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
OSHA Z3. Table Z-3, Mineral Dust

**Engineering measures**
Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other...
engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection: Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection

Remarks: 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: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

9. Physical and chemical properties

Appearance: paste
Color: gray
Odor: amine-like
Odor Threshold: no data available
Flash point: > 212 °F (> 100 °C)
Ignition temperature: not applicable
Decomposition temperature: no data available
Lower explosion limit (Vol%): no data available
Upper explosion limit (Vol%): no data available
Safety Data Sheet

Sikadur®-51 NS Part B

Revision Date 07/17/2014
Print Date 07/17/2014

Flammability (solid, gas) : no data available
Oxidizing properties : no data available
Autoignition temperature : no data available
pH : no data available
Melting point/range / Freezing point : no data available
Boiling point/boiling range : no data available
Vapor pressure : no data available
Density : 1.64 g/cm³ at 73 °F (23 °C)
Water solubility : Note: slightly soluble
Partition coefficient: n-octanol/water : no data available
Viscosity, dynamic : no data available
Viscosity, kinematic : > 20.5 mm²/s at 104 °F (40 °C)
Relative vapor density : no data available
Evaporation rate : no data available
Burning rate : no data available
Volatile organic compounds (VOC) content : 94 g/l A+B Combined

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

11. Toxicological information

Acute toxicity
Product
Acute oral toxicity : no data available
Acute inhalation toxicity : no data available
Acute dermal toxicity : no data available

Ingredients:
Benzyl alcohol :
Acute oral toxicity : LD50 Oral rat: 1,230 mg/kg
Acute inhalation toxicity : LC50 rat: 4.178 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Isophoronediamine :
Acute oral toxicity : LD50 Oral rat: 1,030 mg/kg

Skin corrosion/irritation
Product
Causes severe skin burns and eye damage.

Serious eye damage/eye irritation
Product
no data available

Respiratory or skin sensitization
Product
May cause an allergic skin reaction.

Germ cell mutagenicity
Product
Mutagenicity : no data available

Carcinogenicity
Product
Carcinogenicity : May cause cancer.

IARC
Group 1: Carcinogenic to humans
Quartz (SiO2) 14808-60-7
Quartz (SiO2) <5µm 14808-60-7

NTP
Known to be human carcinogen
Quartz (SiO2) 14808-60-7
Quartz (SiO2) <5µm 14808-60-7

Reproductive Toxicity/Fertility
Product
Reproductive toxicity : no data available

Reproductive Toxicity/Development/Teratogenicity

Product
Teratogenicity : no data available

STOT-single exposure

Product
Assessment: no data available

STOT-repeated exposure

Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Product
Assessment: no data available

Aspiration toxicity

Product
no data available

12. Ecological information

Other information
Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

13. Disposal considerations

Disposal methods
Waste from residues : 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.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
14. Transport information

**DOT**
- UN number: 3267
- Description of the goods: Corrosive liquid, basic, organic, n.o.s.  
  (Isophoronediamine, 2,4,6-tris(dimethylaminomethyl)phenol)
- Class: 8
- Packing group: III
- Labels: 8
- Emergency Response: 153

**IATA**
- UN number: 3267
- Description of the goods: Corrosive liquid, basic, organic, n.o.s.  
  (Isophoronediamine, 2,4,6-tris(dimethylaminomethyl)phenol)
- Class: 8
- Packing group: III
- Labels: 8
- Packing instruction (cargo aircraft): 856
- Packing instruction (passenger aircraft): 852
- Packing instruction (passenger aircraft): Y841

**IMDG**
- UN number: 3267
- Description of the goods: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
  (Isophoronediamine, 2,4,6-tris(dimethylaminomethyl)phenol)
- Class: 8
- Packing group: III
- Labels: 8
- EmS Number 1: F-A
- EmS Number 2: S-B
- Marine pollutant: no

DOT: For Limited Quantity exceptions reference 49 CFR 173.154 (b)
IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

**Special precautions for use**
- no data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
- not applicable

15. Regulatory information

**TSCA list**: All chemical substances in this product are either listed on the
TSCA Inventory or are in compliance with a TSCA Inventory exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Acute Health Hazard
Chronic Health Hazard

SARA 302: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65

| WARNING: | Cancer – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov) |

16. Other information

HMIS Classification

<table>
<thead>
<tr>
<th>Health</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X</td>
</tr>
</tbody>
</table>

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.
Notes to Reader
The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at www.sikausa.com or 201-933-8800.

Revision Date 07/17/2014

Material number: 188741