SECTION 1. IDENTIFICATION

Product name : Sarnacol®-2170 R

Manufacturer or supplier's details
Company name : 601, avenue Delmar Canada Pointe-Claire, QC H9R 4A9 Sika Canada Inc. www.sika.ca

Telephone : (514) 697-2610 / 1 (800) 933-7452
Telefax : (514) 694-2792
Health and Safety Services's e-mail address : ehs@ca.sika.com

Emergency telephone : CANUTEC (collect) (613) 996-6666 (24 hours)

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

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
- Flammable liquids : Category 2
- Skin irritation : Category 2
- Eye irritation : Category 2A
- Carcinogenicity (Inhalation) : Category 2
- Reproductive toxicity : Category 2
- Effects on or via lactation
  - Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)
  - Specific target organ systemic toxicity - repeated exposure (Inhalation) : Category 2

GHS label elements
Hazard pictograms:

Signal Word: Danger

Hazard Statements:
- H225 Highly flammable liquid and vapor.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer if inhaled.
- H361 Suspected of damaging fertility or the unborn child.
- H362 May cause harm to breast-fed children.
- 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.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P263 Avoid contact during pregnancy and while nursing.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor 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.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alco-
hol-resistant foam to extinguish.

**Storage:**
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- 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.

**Other hazards**
None known.

**Supplemental information**
If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous ingredients**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>butanone</td>
<td>78-93-3</td>
<td>$\geq 30 - &lt; 60$</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>$\geq 15 - &lt; 40$</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>$\geq 2 - &lt; 5$</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>$\geq 1 - &lt; 2$</td>
</tr>
<tr>
<td>alkanes, C14-17, chloro</td>
<td>85535-85-9</td>
<td>$\geq 0 - &lt; 1$</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**General advice:**
Move out of dangerous area.
Consult a physician.
Show this material 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.
- Do not induce vomiting without medical advice.
- 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**
- Irritant effects
- Respiratory disorder
- Excessive lachrymation
- Erythema
- Dermatitis
- Loss of balance
- Vertigo
- See Section 11 for more detailed information on health effects and symptoms.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause drowsiness or dizziness.
- Suspected of causing cancer if inhaled.
- Suspected of damaging fertility or the unborn child.
- May cause harm to breast-fed children.
- May cause damage to organs through prolonged or repeated exposure if inhaled.

**Notes to physician**
- Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
- Alcohol-resistant foam
- Carbon dioxide (CO2)
- Dry chemical

**Unsuitable extinguishing media**
- Water
- High volume water jet

**Specific hazards during firefighting**
- Do not use a solid water stream as it may scatter and spread fire.

**Further information**
- Use water spray to cool unopened containers.
- 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.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment**
- Use personal protective equipment.
tive equipment and emergency procedures

Remove all sources of ignition.
Deny access to unprotected persons.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions:
Prevent product from entering drains.
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:
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:
Use explosion-proof equipment. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take precautionary measures against electrostatic discharges.

Advice on safe handling:
Do not breathe vapors 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.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharge.
Open drum carefully as content may be under pressure.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage:
Store in original container.
Store in cool place.
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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</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>butanone</td>
<td>78-93-3</td>
<td>TWA</td>
<td>200 ppm</td>
<td>CA AB OEL</td>
</tr>
</tbody>
</table>
## Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>butanone</td>
<td>78-93-3</td>
<td>methyl ethyl ketone</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>2 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Toluene</td>
<td>In blood</td>
<td>Prior to</td>
<td>0.02 mg/l</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Substance</td>
<td>Concentration</td>
<td>Measurement</td>
<td>BEI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>0.03 mg/l</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o-Cresol</td>
<td>0.3 mg/g Creatinine</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xylene 1330-20-7</td>
<td>1.5 g/g creatinine</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butanone 78-93-3</td>
<td>2 mg/l</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene 108-88-3</td>
<td>0.02 mg/l</td>
<td>In blood</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>0.03 mg/l</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o-Cresol</td>
<td>0.3 mg/g Creatinine</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xylene 1330-20-7</td>
<td>1.5 g/g creatinine</td>
<td>Urine</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Sarnacol®-2170 R

Version 2.0
Revision Date: 06/08/2018
SDS Number: 000000605360

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Sum of</th>
<th>Urine</th>
<th>End of</th>
<th>0.15 g/g</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>mandelic acid and phenyl glyoxylic acid</td>
<td>shift (As soon as possible after exposure ceases)</td>
<td>creatinine</td>
<td>BEI</td>
</tr>
</tbody>
</table>

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive 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 respiratory and skin/eye protection only after vapors have been cleared from the area. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.
### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>amber</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/range / Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>111 °C (232 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>ca. -5 °C (23 °F) Method: closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>7 % (V)</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>1 % (V)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>88.9924 hpa (66.750 mmHg)</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>ca. 0.888 g/cm³ (23 °C (73 °F) )</td>
</tr>
<tr>
<td>Solubility (ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>ca. &gt; 20.5 mm²/s (40 °C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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.
- Vapors may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : No data available

No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:

butanone:
Acute oral toxicity : LD50 Oral (Rat): 3,300 mg/kg

Acute inhalation toxicity : LC50 (Rat): 36 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

xylene:
Acute oral toxicity : LD50 Oral (Rat): 3,523 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,700 mg/kg

ethylenzene:
Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 5,510 mg/kg
Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Suspected of causing cancer if inhaled.
IARC Group 2B: Possibly carcinogenic to humans
ethylbenzene 100-41-4

NTP Not applicable

Reproductive toxicity
Suspected of damaging fertility or the unborn child.
May cause harm to breast-fed children.

STOT-single exposure
May cause drowsiness or dizziness.

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

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:
xylene:
Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.3 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: 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.

SECTION 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.

SECTION 14. TRANSPORT INFORMATION

Domestic regulation
TDG (road/train)
UN number: UN 1133
Proper shipping name: ADHESIVES
Class: 3
Packing group: II
Labels: 3

International Regulations
IATA-DGR
UN/ID No.: UN 1133
Proper shipping name: Adhesives
Class: 3
Packing group: II
Labels: Flammable Liquids
Packing instruction (cargo aircraft): 364
Packing instruction (passenger aircraft): 353

IMDG-Code
UN number: UN 1133
Proper shipping name: ADHESIVES
Class: 3
Packing group: II
Labels: 3
EmS Code: F-E, S-D
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

Canadian PBT Chemicals: This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:
alkanes, C14-17, chloro

Canadian lists
No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Revision Date: 06/08/2018
Prepared by: R & D of Sika Canada Inc.

Notice to Reader:
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Full text of other abbreviations
ADR Accord européen relatif au transport international des marchandises
Dangereuses par Route
CAS Chemical Abstracts Service
DNEL Derived no-effect level
EC50 Half maximal effective concentration
GHS Globally Harmonized System
IATA International Air Transport Association
IMDG International Maritime Code for Dangerous Goods
LD50 Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50 Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
SAFETY DATA SHEET

Sarnacol®-2170 R

Version 2.0
Revision Date: 06/08/2018
SDS Number: 000000605360

OEL Occupational Exposure Limit
PBT Persistent, bioaccumulative and toxic
PNEC Predicted no effect concentration
SVHC Substances of Very High Concern
vPvB Very persistent and very bioaccumulative

CA / Z8