1 Identification

- Product identifier
- Trade name: Sure Fil™ J52 - Part A
- Article number: 100906A
- Application of the substance / the mixture

Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Dayton® Superior
  4226 Kansas Avenue                   Tel.: (866) 329-8724
  Kansas City, KS 66106

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- Information department: Environmental, Health, and Safety department.

2 Hazard(s) identification

- Classification of the substance or mixture
  Eye Irrit. 2A H319 Causes serious eye irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  Carc. 2 H351 Suspected of causing cancer.
  Aquatic Acute 3 H402 Harmful to aquatic life.
  Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- Label elements
  GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  GHS pictograms

  GHS07  GHS08

- Signal word Warning

- Hazard-determining components of labeling:
  4-nonylphenol, branched
titanium dioxide

- Hazard statements
  Causes serious eye irritation.
  May cause an allergic skin reaction.
  Suspected of causing cancer.
  Harmful to aquatic life.
  Harmful to aquatic life with long lasting effects.

- Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wear protective gloves/protective clothing/eye protection/face protection.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Wash contaminated clothing before reuse.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
Trade name: Sure Fil™ J52 - Part A

- Classification system:
- NFPA ratings (scale 0 - 4)

Health = 1
Fire = 1
Reactivity = 0

- HMIS-ratings (scale 0 - 4)

Health = 1
Fire = 1
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  - 25085-99-8 Diglycidyl ether of bisphenol A homopolymer ≥10-%<60%
  - 84852-15-3 4-nonylphenol, branched ≥5-%<7%
  - 13463-67-7 titanium dioxide ≥0.1-%<3.5%
  - 64742-48-9 Naphtha (petroleum), hydrotreated heavy <2.75%
  - 471-34-1 calcium carbonate <2.2%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- General information:
  - Immediately remove any clothing soiled by the product.
  - In the event of persistent symptoms receive medical treatment.
- After inhalation:
  - Supply fresh air and to be sure call for a doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
  - Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.
- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
  - Seek medical treatment.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed No further relevant information available.
5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment:
  Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling
  Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage: cool and dry
- Requirements to be met by storerooms and receptacles: Store in a cool dry location.
- Information about storage in one common storage facility:
  Store away from incompatible materials.
  Store away from foodstuffs.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
  The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
  At this time, the other constituents have no known exposure limits.
471-34-1 calcium carbonate

471-34-1 calcium carbonate

PEL Long-term value: 15* 5** mg/m³
*total dust **respirable fraction
REL Long-term value: 10* 5** mg/m³
*total dust **respirable fraction
TLV TLV withdrawn

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· Breathing equipment: Not required.
· Protection of hands:

Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· Eye protection: Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  · Form: Liquid
  · Color: Grey
  · Odor: Mild
  · Odor threshold: Not determined.
· pH-value: Not determined.

· Change in condition
  · Melting point/Melting range: Undetermined.
  · Boiling point/Boiling range: Undetermined.
· Flash point: >94 °C (>201.2 °F)
· Flammability (solid, gaseous): Not applicable.
· Decomposition temperature: Not determined.
· Auto igniting: Product is not selfigniting.
· Danger of explosion: Product does not present an explosion hazard.
· Explosion limits:
  · Lower: Not determined.
  · Upper: Not determined.
· Vapor pressure: Not determined.
## 49. Density
- **Density at 20 °C (68 °F):** 1.19 g/cm³ (9.93055 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

## 50. Solubility
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.

## 51. Viscosity
- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

## 52. Solvent content:
- **Solids content:** 100.0 %
- **Other information:** No further relevant information available.
- **Volatile Organic Compounds:** Contains less than 10 g/L

## 10 Stability and reactivity
- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information
- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - 25085-99-8 Di glycidyl ether of bisphenol A homopolymer
      - Oral LD50 5,000 mg/kg (rat)
      - Dermal LD50 20,000 mg/kg (rabbit)
- **Primary irritant effect:**
  - **on the skin:** May cause skin irritation.
  - **on the eye:**
    - Strong irritant with the danger of severe eye injury.
    - Irritating effect.
  - **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
  - The product shows the following dangers according to internally approved calculation methods for preparations:
    - Irritant
- **Carcinogenic categories**
  - 14807-96-6 Talc
12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Ecotoxicological effects:
  - Remark: Toxic for fish
  - Additional ecological information:
    - General notes:
      - Water hazard class 1 (Self-assessment): slightly hazardous for water
      - Water hazard class 2 (Self-assessment): hazardous for water
      - Do not allow product to reach ground water, water course or sewage system.
      - Danger to drinking water if even small quantities leak into the ground.
      - Also poisonous for fish and plankton in water bodies.
      - Toxic for aquatic organisms
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
    It is the generator’s responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to Federal, State, and Local regulations.

14 Transport information

- UN-Number
- DOT, ADR, ADN, IATA: Not Regulated
- IMDG: UN3082
Trade name: Sure Fil™ J52 - Part A

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>Not Regulated</th>
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</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IATA</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin), MARINE POLLUTANT</td>
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<tr>
<td>IMDG</td>
<td></td>
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</tbody>
</table>

Transport hazard class(es)

<table>
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<th>Class</th>
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<tbody>
<tr>
<td>IMDG</td>
<td></td>
<td></td>
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</tbody>
</table>

Class

<table>
<thead>
<tr>
<th>Class</th>
<th>9 Miscellaneous dangerous substances and articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>9</td>
</tr>
</tbody>
</table>

Packing group

<table>
<thead>
<tr>
<th>DOT, ADR, IMDG, IATA</th>
<th>Packng group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>III</td>
</tr>
</tbody>
</table>

Environmental hazards:

Product contains environmentally hazardous substances: zinc oxide

Marine pollutant:

Yes

Symbol (fish and tree)

Special precautions for user

EMS Number:

F-A,S-F

Stowage Category

A

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

DOT

Remarks:

Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container (>119 gallons).

ADR

U.S. Domestic Ground Shipments:

Same as listed for Standard Shipments above.

U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:

Same as listed for Standard Shipments above.

Emergency Response Guide (ERG) Number:

Not determine

IMDG

Limited quantities (LQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

Not Regulated

(Contd. on page 8)
### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- **Sara**
  - Section 355 (extremely hazardous substances): None of the ingredient is listed.
  - Section 313 (Specific toxic chemical listings): This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>84852-15-3</td>
<td>4-nonylphenol, branched</td>
<td>≥5-%&lt;7%</td>
</tr>
</tbody>
</table>

- **TSCA (Toxic Substances Control Act):**
  - 25085-99-8 Diglycidyl ether of bisphenol A homopolymer ACTIVE
  - 84852-15-3 4-nonylphenol, branched ACTIVE
  - 14807-96-6 Talc ACTIVE
  - 2461-15-6 [[(2-ethylhexyl)oxy]methyl]oxirane ACTIVE
  - 13463-67-7 titanium dioxide ACTIVE
  - 64742-48-9 Naphtha (petroleum), hydrotreated heavy ACTIVE
  - 471-34-1 calcium carbonate ACTIVE
  - 67762-90-7 Hydrophobic silica ACTIVE
  - 63148-62-9 Siloxanes and Silicones, di-Me ACTIVE
  - 546-93-0 Magnesite ACTIVE
  - 14808-60-7 Quartz (SiO2) ACTIVE

- **Hazardous Air Pollutants** None of the ingredients is listed.

- **Proposition 65**
  - Chemicals known to the State of California (Prop. 65) to cause cancer:
    - 13463-67-7 titanium dioxide ACTIVE
    - 14808-60-7 Quartz (SiO2) ACTIVE
  - Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.
  - Chemicals known to cause developmental toxicity: None of the ingredients is listed.

- **Cancerogenity categories**
  - EPA (Environmental Protection Agency) None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    - 14807-96-6 Talc A4
    - 13463-67-7 titanium dioxide A4
    - 14808-60-7 Quartz (SiO2) A2
  - MAK (German Maximum Workplace Concentration)
    - 14807-96-6 Talc 3B
Trade name: Sure Fil™ J52 - Part A

- NIOSH-Ca (National Institute for Occupational Safety and Health)

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>CAS ( J )</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>titanium dioxide</td>
<td>3A</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
<td>J</td>
</tr>
</tbody>
</table>

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms

![GHS07](image) ![GHS08](image)

- Signal word Warning

- Hazard-determining components of labeling:
  - 4-nonylphenol, branched
  - titanium dioxide

- Hazard statements
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
  - Suspected of causing cancer.
  - Harmful to aquatic life.
  - Harmful to aquatic life with long lasting effects.

- Precautionary statements
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Wash contaminated clothing before reuse.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- National regulations:
  - Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environmental, Health & Safety Department
- Contact: Environmental, Health & Safety Manager
- Date of preparation / last revision 03/03/2020 / 96
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
evPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
1 Identification

- Product identifier
  - Trade name: Sure Fil™ J52 - Part B
  - Article number: 100906B
  - Application of the substance / the mixture

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    Dayton® Superior
    4226 Kansas Avenue                   Tel.: (866) 329-8724
    Kansas City, KS 66106

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- Information department: Environmental, Health, and Safety department.

2 Hazard(s) identification

- Classification of the substance or mixture
  Acute Tox. 4  H302  Harmful if swallowed.
  Skin Corr. 1C  H314  Causes severe skin burns and eye damage.
  Eye Dam. 1   H318  Causes serious eye damage.
  Skin Sens. 1  H317  May cause an allergic skin reaction.
  Aquatic Acute 3  H402  Harmful to aquatic life.
  Aquatic Chronic 3  H412  Harmful to aquatic life with long lasting effects.

- Label elements
  - GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

```
GHS05 GHS07
```

- Signal word Danger

- Hazard-determining components of labeling:
  4-nonylphenol, branched
  2-piperazin-1-ylethylamine
  cyclohex-1,2-ylenediamine
  Benzyl alcohol

- Hazard statements
  Harmful if swallowed.
  Causes severe skin burns and eye damage.
  May cause an allergic skin reaction.
  Harmful to aquatic life.
  Harmful to aquatic life with long lasting effects.

- Precautionary statements
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  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/doctor.
  Specific treatment (see on this label).
Trade name: Sure Fil™ J52 - Part B

Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    Health = 3  Fire = 1  Reactivity = 2

- HMIS-ratings (scale 0 - 4)
  HEALTH  FIRE  PHYSICAL HAZARD
  Health = 3  Fire = 1  Reactivity = 2

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  84852-15-3  4-nonylphenol, branched  ≥25-<80%
  140-31-8  2-piperazin-1-ylethylamine  ≥5-<12%
  100-51-6 Benzyl alcohol  ≤6.0%
  694-83-7 cyclohex-1,2-ylenediamine  ≥1-<1.4%
  124-09-4 hexamethylenediamine  ≥1-≤1.1%

- Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  In the event of persistent symptoms receive medical treatment.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
  Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
  Immediately call a doctor.
  Drink copious amounts of water and provide fresh air. Immediately call a doctor.
49.0

Seek medical treatment.

- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 **Fire-fighting measures**

- **Extinguishing media**
  - **Suitable extinguishing agents:**
    - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  
- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**
  - **Protective equipment:**
    - Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 **Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
  - Do not allow product to reach sewage system or any water course.
  - Inform respective authorities in case of seepage into water course or sewage system.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Use neutralizing agent.
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 **Handling and storage**

- **Handling:**
  - **Precautions for safe handling**
    - Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool dry location.
  - **Information about storage in one common storage facility:** Store away from incompatible materials.
  - **Further information about storage conditions:** Keep receptacle tightly sealed.

8 **Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
Trade name: Sure Fil™ J52 - Part B

- Control parameters
- Components with limit values that require monitoring at the workplace:
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

100-51-6 Benzyl alcohol
   WEEL Long-term value: 10 ppm

124-09-4 hexamethylenediamine
   TLV Long-term value: 2.3 mg/m³, 0.5 ppm
   WEEL Long-term value: 1 ppm

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.
- Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands:
  Protective gloves
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Eye protection: Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  Form: Liquid
  Color: Amber
- Odor: Ammonia-like
- Odor threshold: Not determined.
- pH-value: Not determined.
- Change in condition
  Melting point/Melting range: Undetermined.
  Boiling point/Boiling range: Undetermined.
- Flash point: >94 °C (>201.2 °F)
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 315 °C (599 °F)
- Decomposition temperature: Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: 2.1 Vol %
  - Upper: 10.5 Vol %
- **Vapor pressure at 20 °C (68 °F):** 0.1 hPa (0.1 mm Hg)
- **Density at 20 °C (68 °F):** 0.97 g/cm³ (8.09465 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Solvent content:**
  - Organic solvents: 6.0 %
  - Water: 0.0 %
- **Solids content:** 100.0 %
- **Other information:** No further relevant information available.
- **Volatile Organic Compounds:** Contains less than 10 g/L

### 10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials** No further relevant information available.
- **Hazardous decomposition products** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

  **LD/LC50 values that are relevant for classification**

  **140-31-8 2-piperazin-1-yylethylamine**

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2,140 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>880 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect**
  - **on the skin:** May cause skin irritation.
  - **on the eye:** Strong caustic effect.
  - **Sensitization:** Sensitization possible through skin contact.
49.0

- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Corrosive
  Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories

| IARC (International Agency for Research on Cancer) | 105-60-2 1,6-hexanolactam | 3 |
| 71-43-2 benzene | 1 |

| NTP (National Toxicology Program) | 71-43-2 benzene | K |

| OSHA-Ca (Occupational Safety & Health Administration) | 71-43-2 benzene |

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (Self-assessment): slightly hazardous for water
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    Danger to drinking water if even small quantities leak into the ground.

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of as normal garbage. Do not allow product to reach sewage system.
    It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to Federal, State, and Local regulations.
## 14 Transport information

| UN-Number | UN1760 |
| UN proper shipping name | DOT, ADR, IMDG, IATA |
| DOT | Corrosive liquids, n.o.s. (nonylphenol) |
| ADR | 1760 CORROSIVE LIQUID, N.O.S. (nonylphenol), ENVIRONMENTALLY HAZARDOUS |
| IMDG | CORROSIVE LIQUID, N.O.S. (nonylphenol), MARINE POLLUTANT |
| IATA | CORROSIVE LIQUID, N.O.S. (nonylphenol) |

### Transport hazard class(es)

- **DOT**
  - Class 8 Corrosive substances
  - Label 8

- **ADR, IMDG**
  - Class 8 Corrosive substances
  - Label 8

- **IATA**
  - Class 8 Corrosive substances
  - Label 8

### Packing group

- **DOT, ADR, IMDG, IATA** III

### Environmental hazards:

- **Marine pollutant:** No
- **Special marking (ADR):** Symbol (fish and tree)

### Special precautions for user

- **Danger code (Kemler):** Warning: Corrosive substances 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Alkalis

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.
Trade name: Sure Fil™ J52 - Part B

Transport/Additional information:
- ADR
- Excepted quantities (EQ) Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml
- U.S. Domestic Ground Shipments:
- U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:
- Emergency Response Guide (ERG) Number: 153
- IMDG
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation": UN 1760 CORROSIVE LIQUID, N.O.S. (NONYLPHENOL), 8, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information
- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      - 7664-41-7 ammonia, anhydrous
    - Section 313 (Specific toxic chemical listings):
      This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.
      - 84852-15-3 4-nonylphenol, branched >25-%<80%
      - 7664-41-7 ammonia, anhydrous <0.1%
      - 71-43-2 benzene <0.1%
    - TSCA (Toxic Substances Control Act):
      - 84852-15-3 4-nonylphenol, branched ACTIVE
      - 140-31-8 2-piperazin-1-ylethylamine ACTIVE
      - 100-51-6 Benzyl alcohol ACTIVE
      - 143-23-7 1,6-Hexanediamine, N-(6-aminohexyl)- ACTIVE
      - 694-83-7 cyclohex-1,2-ylenediamine ACTIVE
      - 124-09-4 hexamethylenediamine ACTIVE
      - 15520-10-2 2-methylpentane-1,5-diamine ACTIVE
      - 111-49-9 perhydroazepine ACTIVE
      - 105-60-2 1,6-hexanolactam ACTIVE
      - 2432-74-8 6-aminohexanitrile ACTIVE
      - 7664-41-7 ammonia, anhydrous ACTIVE
      - 71-43-2 benzene ACTIVE
      - 7732-18-5 water, distilled, conductivity or of similar purity ACTIVE
### Hazardous Air Pollutants

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td></td>
</tr>
</tbody>
</table>

### Proposition 65

#### Chemicals known to the State of California (Prop. 65) to cause cancer:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td></td>
</tr>
</tbody>
</table>

#### Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

#### Chemicals known to cause reproductive toxicity for males:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td></td>
</tr>
</tbody>
</table>

#### Chemicals known to cause developmental toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td></td>
</tr>
</tbody>
</table>

### Cancerogenity categories

#### EPA (Environmental Protection Agency)

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td>A, K/L</td>
</tr>
</tbody>
</table>

#### TLV (Threshold Limit Value established by ACGIH)

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>105-60-2 1,6-hexanolactam</td>
<td>A5</td>
</tr>
<tr>
<td>71-43-2 benzene</td>
<td>A1</td>
</tr>
</tbody>
</table>

#### MAK (German Maximum Workplace Concentration)

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td>1</td>
</tr>
</tbody>
</table>

#### NIOSH-Ca (National Institute for Occupational Safety and Health)

<table>
<thead>
<tr>
<th>Compound</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-43-2 benzene</td>
<td></td>
</tr>
</tbody>
</table>

### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

#### Hazard pictograms

GHS05  GHS07

#### Signal word

**Danger**

#### Hazard-determining components of labeling:

- 4-nonylphenol, branched
- 2-piperazin-1-ylethylamine
- cyclohex-1,2-ylendiamine
- Benzyl alcohol

#### Hazard statements

- Harmful if swallowed.
- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- Harmful to aquatic life.
- Harmful to aquatic life with long lasting effects.

#### Precautionary statements

- **If on skin (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower.
- **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/doctor.
- **Specific treatment (see on this label).**
- Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental, Health & Safety Department
- **Contact:** Environmental, Health & Safety Manager
- **Date of preparation / last revision** 03/03/2020 / 86

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1C: Skin corrosion/irritation – Category 1C
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - Skin Sens. 1: Skin sensitisation – Category 1
  - Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
  - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3