SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : 66 Brush Grade Modified Bitumen Adhesive
Product code : X66B 190208

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Adhesives

1.3. Supplier

Manufacturer
Karnak Corporation
330 Central Avenue
Clark, New Jersey 07066 - USA
T +1-800-526-4236
www.karnakcorp.com

1.4. Emergency telephone number

Emergency number : CHEMTREC (US Transportation): (800)424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
- Flam. Liq. 3 Flammable liquid and vapor
- Skin Irrit. 2 Causes skin irritation
- Eye Irrit. 2A Causes serious eye irritation
- Muta. 1B May cause genetic defects
- Carc. 1A May cause cancer
- Repr. 2 Suspected of damaging fertility or the unborn child

2.2. GHS Label elements, including precautionary statements

GHS US labeling
- Hazard pictograms (GHS US)

Signal word (GHS US) : Danger
- Hazard statements (GHS US)
  - Flammable liquid and vapor
  - Causes skin irritation
  - Causes serious eye irritation
  - May cause genetic defects
  - May cause cancer
  - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US)
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash hands, forearms and face thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If exposed or concerned: Get medical advice/attention.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>CAS-No.: 8052-42-4</td>
<td>30 - 50</td>
</tr>
<tr>
<td>Solvent naphtha, petroleum, light aromatic</td>
<td>CAS-No.: 64742-95-6</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Benzene, 1,2,4-trimethyl-</td>
<td>CAS-No.: 95-63-6</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Styrene-Butadien-Styrene Block Copolymer</td>
<td>CAS-No.: 9003-55-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Xylenes (o-, m-, p- isomers)</td>
<td>CAS-No.: 1330-20-7</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Quartz</td>
<td>CAS-No.: 14808-60-7</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Isopropylbenzene</td>
<td>CAS-No.: 98-82-8</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms: May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard: Flammable liquid and vapor. Products of combustion may include, and are not limited to: oxides of carbon. Hydrocarbons.
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.
Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition. Use only non-sparking tools.

6.1.1. For non-emergency personnel
No additional information available

6.1.2. For emergency responders
No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
66 Brush Grade Modified Bitumen Adhesive

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Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: “Exposure controls/personal protection”.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. When using do not eat, drink or smoke. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Handle and open container with care. Use only non-sparking tools. Use explosion-proof equipment.

Hygiene measures: Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed.

Storage conditions: Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

66 Brush Grade Modified Bitumen Adhesive

No additional information available

Asphalt (8052-42-4)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA: 0.5 mg/m³ (fume, inhalable particulate matter)

ACGIH chemical category: Not Classifiable as a Human Carcinogen fume, coal tar-free

USA - ACGIH - Biological Exposure Indices

BEI (BLV): 2.5 μg/l Parameter: 1-Hydroxypyrene with hydrolysis - Medium: urine - Sampling time: end of shift at end of workweek (background)

Parameter: 3-Hydroxybenzo(a)pyrene with hydrolysis - Medium: urine - Sampling time: end of shift at end of workweek (nonquantitative)

Solvent naphtha, petroleum, light aromatic (64742-95-6)

No additional information available

Benzene, 1,2,4-trimethyl- (95-63-6)

No additional information available

Xylenes (o-, m-, p- isomers) (1330-20-7)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA [ppm]: 100 ppm

ACGIH OEL STEL [ppm]: 150 ppm
# Xylenes (o-, m-, p-isomers) (1330-20-7)

<table>
<thead>
<tr>
<th>ACGIH chemical category</th>
<th>Not Classifiable as a Human Carcinogen</th>
</tr>
</thead>
</table>

## USA - ACGIH - Biological Exposure Indices

<table>
<thead>
<tr>
<th>BEI (BLV)</th>
<th>1.5 g/g Creatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: end of shift</th>
</tr>
</thead>
</table>

## USA - OSHA - Occupational Exposure Limits

### Local name
- Xylenes (o-, m-, p-isomers)

### OSHA PEL (TWA)
- [1] 435 mg/m³
- [2] 100 ppm

### Regulatory reference (US-OSHA)
- OSHA Annotated Table Z-1

## Isopropylbenzene (98-82-8)

### USA - ACGIH - Occupational Exposure Limits

### Local name
- Cumene

### ACGIH OEL TWA [ppm]
- 5 ppm

### Remark (ACGIH)
- TLV® Basis: Eye, skin, & URT irr; CNS impair

### ACGIH chemical category
- Confirmed Animal Carcinogen with Unknown Relevance to Humans

### Regulatory reference
- ACGIH 2020

## USA - OSHA - Occupational Exposure Limits

### Local name
- Cumene

### OSHA PEL (TWA)
- [1] 245 mg/m³
- [2] 50 ppm

### Limit value category (OSHA)
- prevent or reduce skin absorption

### Regulatory reference (US-OSHA)
- OSHA Annotated Table Z-1

## Quartz (14808-60-7)

### USA - ACGIH - Occupational Exposure Limits

<table>
<thead>
<tr>
<th>ACGIH OEL TWA</th>
<th>0.025 mg/m³ (respirable particulate matter)</th>
</tr>
</thead>
</table>

### ACGIH chemical category
- Suspected Human Carcinogen

## USA - OSHA - Occupational Exposure Limits

### Local name
- Quartz (Total Dust) (Silica: Crystalline)

### OSHA PEL (TWA)
- [1] 50 µg/m³ (Respirable crystalline silica)

### Remark (OSHA)
- Table Z-3. For OSHA PEL (TWA) use formula: (30 mg/m³ / (%SiO₂+2)) for mg/m³. CAS No. source: eCFR Table Z-1.

### Regulatory reference (US-OSHA)
- OSHA Annotated Table Z-3 Mineral Dusts

## 8.2. Appropriate engineering controls

### Appropriate engineering controls
- Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Provide readily accessible eye wash stations and safety showers.
- Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

### Environmental exposure controls
- Avoid release to the environment.
8.3. Individual protection measures/Personal protective equipment

**Hand protection:**
Wear suitable gloves resistant to chemical penetration

**Eye protection:**
Wear eye/face protection

**Skin and body protection:**
Wear suitable protective clothing

**Respiratory protection:**
In case of insufficient ventilation, wear suitable respiratory equipment. 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.

**Other information:**
Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>300 – 350 °F</td>
</tr>
<tr>
<td>Flash point</td>
<td>104 °F (Minimum)</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Flammable liquid and vapor.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>&gt; 20.5 mm²/s</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.
10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid


10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Hydrocarbons. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Acute toxicity (oral)    | Not classified |
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Not classified |

Asphalt (8052-42-4)

| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | > 94.4 mg/m³ (Exposure time: 4.5 h) |

Solvent naphtha, petroleum, light aromatic (64742-95-6)

| LD50 oral rat | 8400 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | 3400 ppm/4h |

Benzene, 1,2,4-trimethyl- (95-63-6)

| LD50 oral rat | 3280 mg/kg |
| LD50 dermal rabbit | > 3160 mg/kg |
| LC50 inhalation rat | 18 g/m³ (Exposure time: 4 h) |

Xylenes (o-, m-, p- isomers) (1330-20-7)

| LD50 oral rat | 3500 mg/kg |
| LD50 dermal rat | 1100 mg/kg |

Isopropylbenzene (98-82-8)

| LD50 oral rat | 1400 mg/kg |
| LD50 dermal rabbit | 12300 µl/kg |
| LC50 inhalation rat | > 3577 ppm (Exposure time: 6 h) |

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.
# 66 Brush Grade Modified Bitumen Adhesive

**Safety Data Sheet**


<table>
<thead>
<tr>
<th>Respiratory or skin sensitization</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germ cell mutagenicity</td>
<td>May cause genetic defects.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>May cause cancer.</td>
</tr>
</tbody>
</table>

**Asphalt (8052-42-4)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>2B - Possibly carcinogenic to humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>In OSHA Hazard Communication Carcinogen list</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Xylenes (o-., m-., p- isomers) (1330-20-7)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>3 - Not classifiable</th>
</tr>
</thead>
</table>

**Isopropylbenzene (98-82-8)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>2B - Possibly carcinogenic to humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Toxicology Program (NTP) Status</td>
<td>Reasonably anticipated to be Human Carcinogen, Evidence of Carcinogenicity</td>
</tr>
<tr>
<td>In OSHA Hazard Communication Carcinogen list</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Quartz (14808-60-7)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>1 - Carcinogenic to humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Toxicology Program (NTP) Status</td>
<td>Known Human Carcinogens</td>
</tr>
<tr>
<td>In OSHA Hazard Communication Carcinogen list</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reproductive toxicity</th>
<th>Suspected of damaging fertility or the unborn child.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT-single exposure</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**Solvent naphtha, petroleum, light aromatic (64742-95-6)**

<table>
<thead>
<tr>
<th>STOT-single exposure</th>
<th>May cause drowsiness or dizziness.</th>
</tr>
</thead>
</table>

**Benzene, 1,2,4-trimethyl- (95-63-6)**

<table>
<thead>
<tr>
<th>STOT-single exposure</th>
<th>May cause respiratory irritation.</th>
</tr>
</thead>
</table>

**Xylenes (o-., m-., p- isomers) (1330-20-7)**

<table>
<thead>
<tr>
<th>STOT-single exposure</th>
<th>May cause drowsiness or dizziness.</th>
</tr>
</thead>
</table>

**Isopropylbenzene (98-82-8)**

<table>
<thead>
<tr>
<th>STOT-single exposure</th>
<th>May cause respiratory irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT-repeated exposure</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**Asphalt (8052-42-4)**

<table>
<thead>
<tr>
<th>LOAEC (inhalation,rat,dust/mist/fume,90 days)</th>
<th>0.0207 mg/l air Animal: rat, Guideline: other:OECD 451</th>
</tr>
</thead>
</table>

**Benzene, 1,2,4-trimethyl- (95-63-6)**

<table>
<thead>
<tr>
<th>NOAEL (oral,rat,90 days)</th>
<th>600 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAEC (inhalation,rat,vapor,90 days)</td>
<td>1.8 mg/l air Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)</td>
</tr>
</tbody>
</table>

**Xylenes (o-, m-, p- isomers) (1330-20-7)**

<table>
<thead>
<tr>
<th>LOAEL (oral,rat,90 days)</th>
<th>150 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)</th>
</tr>
</thead>
</table>

**Quartz (14808-60-7)**

<table>
<thead>
<tr>
<th>STOT-repeated exposure</th>
<th>Causes damage to organs through prolonged or repeated exposure.</th>
</tr>
</thead>
</table>

**Aspiration hazard**

<table>
<thead>
<tr>
<th>Not classified</th>
</tr>
</thead>
</table>

11/01/2022 (Revision date)  EN (English US)  8/12
**66 Brush Grade Modified Bitumen Adhesive**

*Safety Data Sheet*


<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, kinematic</td>
<td>&gt; 20.5 mm²/s</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
<td>May cause irritation to the respiratory tract.</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
<td>Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
<td>Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
<td>May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea</td>
</tr>
<tr>
<td>Chronic symptoms</td>
<td>May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child.</td>
</tr>
<tr>
<td>Other information</td>
<td>Likely routes of exposure: ingestion, inhalation, skin and eye.</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Ecology - general**

May cause long-term adverse effects in the aquatic environment.

**Solvent naphtha, petroleum, light aromatic (64742-95-6)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>LC50</th>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish [1]</td>
<td>9.22 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)</td>
<td>6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
</tbody>
</table>

**Benzene, 1,2,4-trimethyl- (95-63-6)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>LC50</th>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish [1]</td>
<td>7.19 – 8.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
<td>6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
</tbody>
</table>

**Xylenes (o-, m-, p- isomers) (1330-20-7)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>LC50</th>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish [1]</td>
<td>2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)</td>
<td>&gt; 3.4 mg/l Test organisms (species): Ceriodaphnia dubia</td>
</tr>
<tr>
<td>Fish [2]</td>
<td>2.661 – 4.093 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])</td>
<td>0.6 mg/l (Exposure time: 48 h - Species: Gammarus lacustris)</td>
</tr>
<tr>
<td>Chron (chronic)</td>
<td>3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'</td>
<td>&gt; 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'</td>
</tr>
</tbody>
</table>

**Isopropylbenzene (98-82-8)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>LC50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish [1]</td>
<td>6.04 – 6.61 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
<td>6.04 – 6.61 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
</tr>
<tr>
<td>Fish [2]</td>
<td>4.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])</td>
<td>4.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])</td>
</tr>
<tr>
<td>Fish [2]</td>
<td>7.9 – 14.1 mg/l (Exposure time: 96 h - Species: Daphnia magna [Static])</td>
<td>7.9 – 14.1 mg/l (Exposure time: 96 h - Species: Daphnia magna [Static])</td>
</tr>
<tr>
<td>Chron (chronic)</td>
<td>0.35 mg/l Test organisms (species): Daphnia magna Duration: '21 d'</td>
<td>0.38 mg/l Test organisms (species): Daphnia magna Duration: '28 d'</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**66 Brush Grade Modified Bitumen Adhesive**

Persistence and degradability: Not established.
12.3. Bioaccumulative potential

66 Brush Grade Modified Bitumen Adhesive

Bioaccumulative potential | Not established.

Asphalt (8052-42-4)

BCF - Fish [1] | (no bioaccumulation expected)
Partition coefficient n-octanol/water | > 6

Benzene, 1,2,4-trimethyl- (95-63-6)

Partition coefficient n-octanol/water | 3.63

Xylenes (o-, m-, p- isomers) (1330-20-7)

BCF - Fish [1] | 0.6 – 15
Partition coefficient n-octanol/water | 2.77 – 3.15

Isopropylbenzene (98-82-8)

BCF - Fish [1] | 35.5
Partition coefficient n-octanol/water | 3.7

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information | No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations | Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible. Recycle empty containers where allowed. Empty containers may contain residues which are hazardous.

Additional information | Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No | Not regulated (if shipped in NON BULK packaging by ground transport) per DOT Exemption 173.150(1)(f)
UN-No. (TDG) | Not regulated (if shipped in NON BULK packaging by ground transport) per TDG Exemption 1.33
UN-No. (IMDG) | 1999
UN-No. (IATA) | 1999

14.2. UN proper shipping name

Proper Shipping Name (DOT) | Not regulated (if shipped in NON BULK packaging by ground transport) per DOT Exemption 173.150(1)(f)
Proper Shipping Name (TDG) | Not regulated (if shipped in NON BULK packaging by ground transport) per TDG Exemption 1.33
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Proper Shipping Name (IMDG) : TARS, LIQUID
Proper Shipping Name (IATA) : TARS, LIQUID

*Flammable for Air and Vessel transportation to non-US territories.

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated
Hazard labels (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated
Hazard labels (TDG) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : 3
Hazard labels (IMDG) : 3

IATA
Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.
Marine pollutant : Product is not a marine pollutant
Emergency Response Guidebook No. : 130

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport per UN1999 TARS LIQUID 3, PG III

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.
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15.2. International regulations
No additional information available

15.3. US State regulations

⚠️ WARNING: This product can expose you to Cumene which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information


Issue date : 12/31/2021
Revision date : 06/27/2022
Other information : None.
Prepared by : Nexreg Compliance Inc.
 www.Nexreg.com

Indication of changes:
Transport information. GHS classification.

Safety Data Sheet (SDS), USA

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