Section 1 - Identification

1.1 Product Identifier
Trade Name: Urethane 4545 Part A

1.2 Relevant identified uses of the substance or mixture and uses advised against
General Use: Polyurethane Elastomer
Restrictions on Use: None known

1.3 Details of the supplier of the safety data sheet:
Company: Smooth-On, Inc.,
5600 Lower Macungie Rd., Macungie, PA 18062
Telephone: Phone (610) 252-5800
E-mail address: Visit our website at www.smooth-on.com or email www.sds@smooth-on.com

1.4 Emergency Contact: Chem-Tel Domestic: 800-255-3924 International: 813-248-0585

Section 2 – Hazard(s) Identification

2.1 Classification of the substance or mixture:

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

H332 Acute Toxicity, Inhalation – Category 4
H334 Respiratory Sensitization – Category 1
H351 Carcinogenicity – Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram(s):
Signal word: Warning

Health Hazards
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351 Suspected of causing cancer.

Precautionary Statements
P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – None known.
This product contains a chemical known to be hazardous according to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). (See also Section 3 and 15).

### Section 3 - Composition / Information on Ingredients

3.1 Substances/Mixtures
The following ingredients are hazardous according to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-Ω-hydroxy, polymer with 1,3 diisocyanatobenzene</td>
<td>9057-91-4</td>
<td>&gt; 80</td>
</tr>
<tr>
<td>Toluene-2,4-diisocyanate</td>
<td>584-84-9</td>
<td>&lt; 1.0</td>
</tr>
<tr>
<td>Toluene-2,6-diisocyanate</td>
<td>91-08-7</td>
<td>&lt; 0.2</td>
</tr>
<tr>
<td>Diisononyl Phthalate</td>
<td>28553-12-0</td>
<td>&lt; 10</td>
</tr>
</tbody>
</table>

### Section 4 - First Aid Measures

4.1 Description of first aid measures

**Inhalation**
Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

**Eye Contact**
Flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check and remove any contact lenses if safe to do so. Continue to rinse for at least 15 minutes. If irritation develops, seek medical attention.

**Skin Contact**
In case of skin contact, wash thoroughly with soap and water. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.

**Ingestion**
Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

4.2 Most important symptoms and effects, both acute and delayed
In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

4.3 Indication of any immediate medical attention and specific treatment needed
None known.
Section 5 - Fire-Fighting Measures

5.1 Extinguishing Media
Water Fog, Dry Chemical, and Carbon Dioxide Foam

5.2 Special hazards arising from the substance or mixture
In a fire or if heated, a pressure increase will occur, and the container may burst.

5.3 Advice for firefighters
Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off “fuel” to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Only properly protected personnel should remain in the spill area; dike and contain spill. Stop or reduce discharge if it can be done safely.

6.2 Environmental precautions
Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains or unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. No special environmental precautions required.

6.3 Methods and material for containment and cleaning up
Put on appropriate protective gear including NIOSH/MSHA approved self-contained breathing apparatus, rubber boots and heavy rubber gloves. Dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely. Follow applicable OSHA regulations (29 CFR 1910.120) for disposal.

6.4 Reference to other sections
See Section 3 for list of Hazardous Ingredients; Sections 8 for Exposure Controls; and Section 13 for Disposal.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Use good general housekeeping procedures. Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities
Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet local standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Avoid water contamination.
7.3 Specific end use(s)
These precautions are for room temperature handling. Other uses including elevated temperatures or aerosol/spray applications may require added precautions.

Section 8 - Exposure Controls / Personal Protection

8.1 Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Basis</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene-2,6-diisocyanate</td>
<td>91-08-7</td>
<td>ACGIH</td>
<td>TWA 0.005 ppm; STEL 0.02 ppm</td>
</tr>
<tr>
<td>Toluene-2,4-diisocyanate</td>
<td>584-84-9</td>
<td>OSHA PEL</td>
<td>CLV 0.02 ppm 0.14 mg/m3; TWA 0.005 ppm 0.04 mg/m3; STEL 0.02 ppm 0.15 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>TWA 0.005 ppm; STEL 0.02 ppm</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Respiratory Protection
Respiratory protection is not normally required when using this product with adequate local exhaust ventilation. Where risk assessment shows air-purifying respirators are appropriate, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with appropriate filter cartridges as a backup to engineering controls.

Hand Protection
Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC.

Eye Protection
Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Other Protective Clothing/Equipment
Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

Comments
Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash thoroughly after handling.

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>Appearance</td>
<td>Clear yellow viscous liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Sharp pungent odor</td>
</tr>
<tr>
<td>pH:</td>
<td>No data</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>&gt;270°F</td>
</tr>
<tr>
<td>Melting / freezing point:</td>
<td>No data</td>
</tr>
<tr>
<td>Low / high boiling point:</td>
<td>No data</td>
</tr>
<tr>
<td>Upper flammability limits:</td>
<td>No data</td>
</tr>
<tr>
<td>Lower flammability limits:</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor density (Air=1):</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>Negligible</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1, at 4 °C):</td>
<td>1.04</td>
</tr>
<tr>
<td>Relative density:</td>
<td>No data</td>
</tr>
<tr>
<td>% Volatile:</td>
<td>0% (v/v), 0% (w/w)</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>&lt;5,000 centipoise</td>
</tr>
</tbody>
</table>
Section 10 - Stability and Reactivity

10.1 Reactivity
No hazardous reactions if stored and handled as prescribed/indicated., No corrosive effect on metal. Not fire propagating.

10.2 Chemical stability
These products are stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization cannot occur

10.4 Conditions to avoid
None known

10.5 Incompatible materials
Strong bases and acids

10.6 Hazardous decomposition products
Thermal oxidative decomposition can produce carbon oxides, gasses/vapors, and traces of incompletely burned carbon compounds.

Section 11- Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity
Assessment of acute toxicity: Of very high toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diisononyl Phthalate (CAS# 28553-12-0)</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;10000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>&gt;3160 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation</td>
<td>Rat</td>
<td>&gt;4.4 mg/l (Exposure time: 4 h)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Irritant

Serious Eye Damage/Irritation
Irritant

Respiratory/Skin Sensitization
Assessment of sensitization: The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Germ Cell Mutagenicity
No data available

Carcinogenicity
Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified

this substance as group 2B (The agent is possibly carcinogenic to humans). NTP listed carcinogen

Reproductive Toxicity
No data available

Specific Target Organ Toxicity – Single Exposure
Assessment of STOT single: Causes temporary irritation of the respiratory tract.

Specific Target Organ Toxicity – Repeated Exposure
No data available

Aspiration Hazard
No data available

Potential Health Effects – Miscellaneous
No data available

---

Section 12 - Ecological Information

12.1 Toxicity
Assessment of aquatic toxicity:
Acute toxicity: harmful for aquatic organisms. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product may hydrolyse. The test result maybe partially due to degradation products.

Toxicity to fish
LC50 (96 h) 164.5 mg/l, Pimephales promelas (static)

Aquatic invertebrates
EC50 (48 h) 12.5 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Toxicity to microorganisms
OECD Guideline 209 static
activated sludge/EC20 (180 min): > 100 mg/l

 Diisononyl Phthalate
LC50 (semi-static, 96): > 100 mg/l, Danio rerio
EC50 (static, 48 h): > 74 mg/l, Daphnia magna
EC50 (static, 72h): > 74 mg/l, Desmodesmus subspicatus

12.2 Persistence and Degradability
Assessment biodegradation and elimination (H2O):
Poorly biodegradable. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The product is unstable in water. The elimination data also refer to products of hydrolysis.

12.3 Bioaccumulative Potential
Bioconcentration factor: < 50 (42 d), Cyprinus carpio (OECD Guideline 305 C)
Does not significantly accumulate in organisms. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.

12.4 Mobility in Soil
Assessment transport between environmental compartments. Adsorption to solid soil phase is not expected.
12.5 Results of PBT and vPvB assessment
No data available

12.6 Other Adverse Effects
No data available

### Section 13 - Disposal Considerations

13.1 Waste treatment methods
Under Resource Conservation and Recovery Act (RCRA) it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste as defined in 40 CFR Part 261. Waste management should be in full compliance with federal, state and local laws. Regulations may vary in various locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

**Container disposal**
Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

### Section 14 - Transport Information

Not regulated by DOT / IMDG / IATA

### Section 15 - Regulatory Information

15.1 Safety health and environmental regulations/legislation specific for the substance or mixture:

This product complies with REACH or is not subject to regulation under REACH. The product does not contain an ingredient listed on either the Candidate List or Authorization List for Substances of Very High Concern (SVHC).

**In the United States (EPA Regulations)**
**TSCA Inventory Status (40 CFR710)**
All components of this formulation are listed in the TSCA Inventory. No component of this formulation has been determined to be subject to manufacturing or use restrictions under the Significant New Use Rules (SNURs).

**CERCLA Hazardous Substance (40 CFR 302.4) listed specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>RQ</th>
<th>% Reportable Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene-2,6-diisocyanate</td>
<td>91-08-7</td>
<td>100 lbs.</td>
<td>&lt;0.2</td>
</tr>
<tr>
<td>Toluene-2,4-diisocyanate</td>
<td>584-84-9</td>
<td>100 lbs</td>
<td>&lt;1.0</td>
</tr>
</tbody>
</table>

**SARA EHS (Extremely Hazardous Substance) (40 CFR 355):**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>RQ</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene-2,6-diisocyanate</td>
<td>91-08-7</td>
<td>100 lbs.</td>
<td>&lt;0.2</td>
</tr>
</tbody>
</table>
Toluene-2,4-diisocyanate  584-84-9  100 lbs  <1.0

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

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and community Right-to-Know Act of 1986) Sections 311 and 312
Immediate (Acute), Delayed (Chronic)

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
These products contain the following chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>RQ</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene-2,6-diisocyanate</td>
<td>91-08-7</td>
<td>100 lbs.</td>
<td>&lt;0.2</td>
</tr>
<tr>
<td>Toluene-2,4-diisocyanate</td>
<td>584-84-9</td>
<td>100 lbs</td>
<td>&lt;1.0</td>
</tr>
</tbody>
</table>

State Right-to-Know
Component
Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-Ω-hydroxy, polymer with 1,3 diisocyanatomethylbenzene
CAS# 9057-91-4
State PA, NJ

KEEP OUT OF REACH OF CHILDREN

WARNING: Known to the State of CA to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

15.2 Chemical safety assessment
No chemical safety assessment has been carried out for this substance/mixture by the supplier.

16 - Other Information

Abbreviations and acronyms
ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know
Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

Disclaimer
The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.
Section 1 - Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier
Trade Name: Urethane 4545 Part B

1.2 Relevant identified uses of the substance or mixture and uses advised against
General Use: Polyurethane Elastomer
Restrictions on Use: None known

1.3 Details of the supplier of the safety data sheet:
Company: Smooth-On, Inc.,
5600 Lower Macungie Rd., Macungie, PA 18062
Telephone: Phone (610) 252-5800
E-mail address: Visit our website at www.smooth-on.com or email www.sds@smooth-on.com

1.4 Emergency Contact:
Chem-Tel Domestic: 800-255-3924 International: 813-248-0585

Section 2 – Hazard(s) Identification

2.1 Classification of the substance or mixture:

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

H361 Toxic to reproduction – Category 2
H373 Specific Target Organ Toxicity, repeated exposure – Category 2
H411 Chronic Aquatic Toxicity – Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram(s):
Signal word: Warning

Health Hazards
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Environmental Hazards
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements
P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.
P501 Dispose of contents/container according to local, state and federal laws.
2.3 **Hazards not otherwise classified (HNOC) or not covered by GHS** – none.
This product contains a chemical known to be hazardous according to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). (See also Section 3 and 15).

### Section 3 - Composition / Information on Ingredients

#### 3.1 Substances/Mixtures
The following ingredients are hazardous according to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzenediamine, ar, ar-diethyl-ar-methyl-</td>
<td>68479-98-1</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Dibutyltin dineodecanoate</td>
<td>68928-76-7</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

### Section 4 - First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation**
Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

**Eye Contact**
Flush eyes with plenty of water occasionally lifting the upper and lower eyelids. Check and remove any contact lenses if safe to do so. Continue to rinse for at least 15 minutes. If irritation develops, seek medical attention.

**Skin Contact**
In case of skin contact, wash thoroughly with soap and water. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.

**Ingestion**
Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

#### 4.2 Most important symptoms and effects, both acute and delayed
In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

#### 4.3 Indication of any immediate medical attention and specific treatment needed

### Section 5 - Fire-Fighting Measures

#### 5.1 Extinguishing Media
Water Fog, Dry Chemical, and Carbon Dioxide Foam

#### 5.2 Special hazards arising from the substance or mixture
In a fire or if heated, a pressure increase will occur, and the container may burst.
5.3 Advice for firefighters
Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off “fuel” to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Only properly protected personnel should remain in the spill area; dike and contain spill. Stop or reduce discharge if it can be done safely.

6.2 Environmental precautions
Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains or unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. No special environmental precautions required.

6.3 Methods and material for containment and cleaning up
Put on appropriate protective gear including NIOSH/MSHA approved self-contained breathing apparatus, rubber boots and heavy rubber gloves. Dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely. Follow applicable OSHA regulations (29 CFR 1910.120) for disposal.

6.4 Reference to other sections
See Section 3 for list of Hazardous Ingredients; Sections 8 for Exposure Controls; and Section 13 for Disposal.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Use good general housekeeping procedures. Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities
Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet local standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Avoid water contamination.

7.3 Specific end use(s)
These precautions are for room temperature handling. Other uses including elevated temperatures or aerosol/spray applications may require added precautions.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters
None defined

8.2 Exposure controls
**Respiratory Protection**
Respiratory protection is not normally required when using this product with adequate local exhaust ventilation. Where risk assessment shows air-purifying respirators are appropriate, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with appropriate filter cartridges as a backup to engineering controls.

**Hand Protection**
Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC.

**Eye Protection**
Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Other Protective Clothing/Equipment**
Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

**Comments**
Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. 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>White liquid</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Vapor density (Air=1)</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>No data</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data</td>
</tr>
<tr>
<td>Flash Point</td>
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</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>No data</td>
</tr>
<tr>
<td>Specific Gravity (H2O=1, at 4 °C):</td>
<td>1.04</td>
</tr>
<tr>
<td>Low / high boiling point</td>
<td>No data</td>
</tr>
<tr>
<td>Relative density</td>
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<td>Upper flammability limits</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Lower flammability limits</td>
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</tr>
<tr>
<td>Viscosity</td>
<td>No data</td>
</tr>
</tbody>
</table>

**Section 10 - Stability and Reactivity**

10.1 **Reactivity**
No hazardous reactions if stored and handled as prescribed/indicated., No corrosive effect on metal. Not fire propagating.

10.2 **Chemical stability**
These products are stable at room temperature in closed containers under normal storage and handling conditions.

10.3 **Possibility of hazardous reactions**
Hazardous polymerization cannot occur

10.4 **Conditions to avoid**
None known

10.5 **Incompatible materials**
10.6 **Hazardous decomposition products**
Thermal oxidative decomposition can produce carbon oxides, gasses/vapors, and traces of incompletely burned carbon compounds.

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**Section 11- Toxicological Information**

11.1 **Information on toxicological effects**

**Acute Toxicity**

*Benzenediamine, ar, ar-diethyl-ar-methyl- (68479-98-1)*
- LD50 Oral: Rat Oral LD50: 738 mg/kg
- LD50 Dermal: Rabbit Dermal LD50: > 2000 mg/kg

*Dibutyltin dineodecanoate (68928-76-7)*
- ATE US (oral) 500 mg/kg body weight

**Skin Corrosion/Irritation**
- Slight

**Serious Eye Damage/Irritation**
- Slight

**Respiratory/Skin Sensitization**
- No data available

**Germ Cell Mutagenicity**
- No data available

**Carcinogenicity**
- No component of these products present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, ACGIH or NTP.

**Reproductive Toxicity**

*Benzenediamine, ar, ar-diethyl-ar-methyl- (68479-98-1)*
- Effects on fertility: No effect on reproductive organs in repeated dose studies in rats.
- OECD Test No. 414: Prenatal Development Toxicity Study: NOEL. (Maternal toxicity): 2.63 mg/kg bw/day.
- NOAEL (No Observed Adverse Effect Level): (Developmental Toxicity) 7.83 mg/kg bw/day. The developmental effects observed in this study are considered as secondary to maternal toxicity.

**Specific Target Organ Toxicity – Single Exposure**
- No data available

**Specific Target Organ Toxicity – Repeated Exposure**
- Causes damage to organs through prolonged or repeated exposure.

**Aspiration Hazard**
- No data available

**Potential Health Effects – Miscellaneous**
- No data available
Section 12 - Ecological Information

12.1 Toxicity
Very toxic to aquatic life with long lasting effects.

**Benzenediamine, ar-ar-diethyl-ar-methyl- (68479-98-1)**

<table>
<thead>
<tr>
<th></th>
<th>EC50/72h</th>
<th>EC10/72h</th>
<th>LC50/96h</th>
<th>LC50/48h</th>
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<tbody>
<tr>
<td>Freshwater Algae</td>
<td>104 mg/l</td>
<td>54 mg/l</td>
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<tr>
<td>Freshwater Fish</td>
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<tr>
<td>LC50/48h</td>
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<tr>
<td>&gt; 104 mg/l</td>
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<tr>
<td>Water Flea</td>
<td>5.8 mg/l</td>
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<td>5.8 mg/l</td>
<td>0.5 mg/l</td>
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</tbody>
</table>

12.2 Persistence and Degradability

12.3 Bioaccumulative Potential
No data available

12.4 Mobility in Soil
The substance is expected to partition primarily to soil and water. Koc = . 32-551 l/kg .
(QSAR estimate). Henry's law constant = . 0.000266. (20 °C). (QSAR estimate).

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other Adverse Effects
No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods
Under Resource Conservation and Recovery Act (RCRA) it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste as defined in 40 CFR Part 261. Waste management should be in full compliance with federal, state and local laws. Regulations may vary in various locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

Container disposal
Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

Section 14 - Transport Information

Not regulated by DOT / IMDG / IATA

Section 15 - Regulatory Information

15.1 Safety health and environmental regulations/legislation specific for the substance or mixture:

This product complies with REACH or is not subject to regulation under REACH. The product does not contain an ingredient listed on either the Candidate List or Authorization List for Substances of Very High Concern (SVHC).

In the United States (EPA Regulations)
TSCA Inventory Status (40 CFR710)
All components of this formulation are listed in the TSCA Inventory. No component of this formulation has been determined to be subject to manufacturing or use restrictions under the Significant New Use Rules (SNURs).

CERCLA Hazardous Substance List (40 CFR 302.4)
None known.

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

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and community Right-to-Know Act of 1986) Sections 311 and 312
Immediate (Acute), Delayed (Chronic)

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 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.

KEEP OUT OF REACH OF CHILDREN

WARNING: Known to the State of CA to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

15.2 Chemical safety assessment
No chemical safety assessment has been carried out for this substance/mixture by the supplier.

16 - Other Information

<table>
<thead>
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<th>HMIS</th>
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Abbreviations and acronyms
ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and
Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

Disclaimer
The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.