



# SAFETY DATA SHEET

SDS No. 1763A

Revision Date: 8/2/2018 Version: 2.0

GHS Compliant

## 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](http://www.smooth-on.com) or email  
[www.sds@smooth-on.com](mailto: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).

<b>Section 3 - Composition / Information on Ingredients</b>
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**3.1 Substances/Mixtures**

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

Chemical name	CAS-No.	Concentration
Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -hydro- $\Omega$ -hydroxy, polymer with 1,3 diisocyanatomethylbenzene	9057-91-4	> 80
Toluene-2,4-diisocyanate	584-84-9	< 1.0
Toluene-2,6-diisocyanate	91-08-7	< 0.2
Diisononyl Phthalate	28553-12-0	< 10

<b>Section 4 - First Aid Measures</b>
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**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.

<b>Section 8 - Exposure Controls / Personal Protection</b>
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**8.1 Components with workplace control parameters**

Component	CAS-No.	Basis	Value
Toluene-2,6-diisocyanate	91-08-7	ACGIH	TWA 0.005 ppm; STEL 0.02 ppm
Toluene-2,4-diisocyanate	584-84-9	OSHA PEL	CLV 0.02 ppm 0.14 mg/m <sup>3</sup> ; TWA 0.005 ppm 0.04 mg/m <sup>3</sup> ; STEL 0.02 ppm 0.15 mg/m <sup>3</sup>
		ACGIH TLV	TWA 0.005 ppm; STEL 0.02 ppm

**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.

<b>Section 9 - Physical and Chemical Properties</b>
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**9.1 Information on basic physical and chemical properties**

<b>Appearance:</b>	Clear yellow viscous liquid	<b>Vapor pressure:</b>	No data
<b>Odor:</b>	Sharp pungent odor	<b>Vapor density (Air=1):</b>	>1
<b>pH:</b>	No data	<b>Evaporation rate:</b>	No data
<b>Flash Point:</b>	>270°F	<b>Solubility in water:</b>	Negligible
<b>Melting / freezing point:</b>	No data	<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b>	1.04
<b>Low / high boiling point:</b>	No data	<b>Relative density:</b>	No data
<b>Upper flammability limits:</b>	No data	<b>% Volatile:</b>	0% (v/v), 0% (w/w)
<b>Lower flammability limits:</b>	No data	<b>Viscosity:</b>	<5,000 centipoise

## 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.

Component	Result	Species	Dose
<b>Diisononyl Phthalate (CAS# 28553-12-0)</b>			
	LD50 Oral	Rat	>10000 mg/kg
	LD50 Dermal	Rat	>3160 mg/kg
	LC50 Inhalation	Rat	>4.4 mg/l (Exposure time: 4 h)

#### 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:

Acutely 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 (H<sub>2</sub>O):

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:****REACH: Regulation (EC) No 1907/2006 of The European Parliament and of The Council of December 2006 (including amendments and corrigenda as of 17 February 2016)**

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

<u>Chemical Name</u>	<u>CAS#</u>	<u>RQ</u>	<u>% Reportable Component</u>
Toluene-2,6-diisocyanate	91-08-7	100 lbs.	<0.2
Toluene-2,4-diisocyanate	584-84-9	100 lbs	<1.0

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>RQ</u>	<u>% by Weight</u>
Toluene-2,6-diisocyanate	91-08-7	100 lbs.	<0.2

Toluene-2,4-diisocyanate 584-84-9 100 lbs &lt;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.

<u>Chemical Name</u>	<u>CAS #</u>	<u>RQ</u>	<u>% by Weight</u>
Toluene-2,6-diisocyanate	91-08-7	100 lbs.	<0.2
Toluene-2,4-diisocyanate	584-84-9	100 lbs	<1.0

**State Right-to-Know****Component**

Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -hydro- $\Omega$ -hydroxy, polymer with 1,3 diisocyanatomethylbenzene

**CAS#**

9057-91-4

**State**

PA, NJ

**KEEP OUT OF REACH OF CHILDREN**

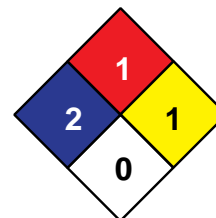
**WARNING:** Known to the State of CA to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**15.2 Chemical safety assessment**

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

**16 - Other Information**

<b>HMIS</b>	
<b>H</b>	<b>2</b>
<b>F</b>	<b>1</b>
<b>R</b>	<b>1</b>

**NFPA**

Revision Date: 8/2/2018 Version: 2.0

**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.



# SAFETY DATA SHEET

SDS No. 1763B

Revision Date: 4/9/2019 Version: 3.0

GHS Compliant

## 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](http://www.smooth-on.com) or email  
[www.sds@smooth-on.com](mailto: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).

<b>Section 3 - Composition / Information on Ingredients</b>
-------------------------------------------------------------

**3.1 Substances/Mixtures**

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

Chemical name	CAS-No.	Concentration
Benzenediamine,ar,ar-diethyl-ar-methyl-	68479-98-1	< 5
Dibutyltin dineodecanoate	68928-76-7	< 1

<b>Section 4 - First Aid Measures</b>
---------------------------------------

**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**

<b>Section 5 - Fire-Fighting Measures</b>
-------------------------------------------

**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.

<b>Section 9 - Physical and Chemical Properties</b>
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**9.1 Information on basic physical and chemical properties**

<b>Appearance:</b>	White liquid	<b>Vapor pressure:</b>	No data
<b>Odor:</b>	Mild	<b>Vapor density (Air=1):</b>	No data
<b>pH:</b>	No data	<b>Evaporation rate:</b>	No data
<b>Flash Point:</b>	No data	<b>Solubility in water:</b>	Insoluble
<b>Melting / freezing point:</b>	No data	<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b>	1.04
<b>Low / high boiling point:</b>	No data	<b>Relative density:</b>	No data
<b>Upper flammability limits:</b>	No data	<b>Decomposition temperature:</b>	No data
<b>Lower flammability limits:</b>	No data	<b>Viscosity:</b>	No data

<b>Section 10 - Stability and Reactivity</b>
----------------------------------------------

**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

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)**

Freshwater Algae EC50/72h	104 mg/l	Algae EC10/72h	54 mg/l
Freshwater Fish LC50/96h	> 104 mg/l	Fish LC50/48h	200 mg/l
Water Flea EC50/48h	5.8 mg/l	Water FleaLC50/48h	0.5 mg/l

### 12.2 Persistence and Degradability

Not readily biodegradable. Photodegradation: T1/2. Air: 1.484. hour. (calculated).

### 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:

**REACH: Regulation (EC) No 1907/2006 of The European Parliament and of The Council of December 2006 (including amendments and corrigenda as of 17 February 2016)**

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**



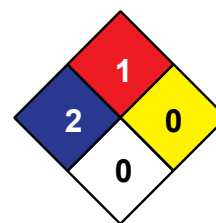
**WARNING:** Known to the State of CA to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**15.2 Chemical safety assessment**

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

**16 - Other Information**

HMIS	
H	2
F	1
R	0



**NFPA**

Revision Date: 4/9/2019 Version: 3.0

**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.