



# SAFETY DATA SHEET

SDS No. 1602A

according to Regulation (EC)

No. 1907/2006 as amended

Revision Date: December 9, 2022 Version 6.0

## Section 1 - Identification of the substance/mixture and of the company

### 1.1 Product Identifier

Trade Name: **Part A for: Smooth-Cast® 325 EU, 326 EU and 327 EU**

### 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 of person: Visit our website at [www.smooth-on.com](http://www.smooth-on.com) or email  
responsible for the SDS [sds@smooth-on.com](mailto:sds@smooth-on.com)

### 1.4 Emergency Contact:

Chem-Tel Domestic: 800-255-3924 International: 813-248-0585  
Italy Istituto Superiore di Sanità (ISS) +390649906140

## Section 2 – Hazard(s) Identification

### 2.1 Classification of the substance or mixture:

**Classification (REGULATION (EC) No 1272/2008) as amended**

**H315** Skin corrosion/irritation – Category 2

**H317** Skin sensitization – Category 1

**H319** Eye irritation – Category 2A

**H332** Acute toxicity, inhalation – Category 4

**H334** Respiratory Sensitization – Category 1

**H335** Specific target organ toxicity – single exposure – Category 3 (respiratory)

**H351** Carcinogenicity – Category 2

**H373** Specific Target Organ Toxicity, repeated exposure Category 2 (respiratory)

For the full text of the H-Statements mentioned in this Section, see Section 16

### 2.2 Label elements, including precautionary statements

**Labelling (REGULATION (EC) No 1272/2008) as amended**



**Pictogram(s):**

**Signal word:** Danger

**Health Hazards:**

H315 Causes skin irritation

- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
  
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335 May cause respiratory irritation
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.

**General Precautions:**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.

**Prevention Precautions:**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash skin with soap and water thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves, long sleeves, and face shield or safety glasses
- P284 [In case of inadequate ventilation] wear respiratory protection.

**Response Precautions:**

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P332 + P313 IF SKIN irritation occurs: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage Precautions:**

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

**Disposal Precautions:**

- P501 Dispose of contents/container according to local, state and federal laws.

**Supplemental Hazard Statements:**

UFI: DDS2-X0X8-G00P-4PYM

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Section 3 - Composition / Information on Ingredients**

**3.1 Substances/Mixtures**

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

Chemical name	Classification	Concentration
Diphenylmethane-4,4'-diisocyanate		

CAS-No.	101-68-8	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Acute Tox. 4, Resp. Sens. 1, STOT SE 3, Carc. 2, STOT RE 2, H315, H317, H319, H332, H334, H335, H351, H373 Concentration limits: >= 5 %: Eye Irrit. 2, H319; >= 5%: STOT SE 3, H335; >=5%: Skin Irrit. 2, H315; >=0.1%: Resp. Sens. 1, H334	35 – 85
EC-No.	202-966-0		
INDEX-No.	615-005-00-9		

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 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. If irritation persists, seek medical attention.

#### Skin Contact

In case of skin contact, wash thoroughly with soap and water.

#### Ingestion

Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 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

None known.

### 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 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.

### 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:

#### Components with workplace control parameters

Component	CAS-No.	Value Form of exposure	Control parameters	Basis
Diphenylmethane 4,4'-di-isocyanate	101-68-8	TWA	0.02 mg/m3	UK. EH40 WEL - Workplace Exposure Limits
		STEL	0.07 mg/m3	UK. EH40 WEL - Workplace Exposure Limits

	Remarks	<p>Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers.</p> <p>Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable.</p> <p>Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance.</p> <p>Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagens? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma.</p> <p>The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma.</p>
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### Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Diphenylmethane 4,4'-di-isocyanate	101-68-8	urinary diamine	1µmol/mol creatinine	Urine	UK. Biological monitoring guidance values
	Remarks	Post task			
		urinary diamine	1µmol/mol creatinine	Urine	UK. Biological monitoring guidance values
		Post task			

### 8.2 Exposure controls:

#### Engineering measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Skin and body protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Protective measures**

Ensure that eye flushing systems and safety showers are located close to the working place.

## Section 9 - Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties:**

<b>Appearance:</b>	Clear liquid	<b>Vapor pressure:</b>	0.0013 hPa at 25 °C
<b>Odor:</b>	Odorless	<b>Vapor density (Air=1):</b>	No data
<b>Odor threshold:</b>	No data	<b>Relative density:</b>	1.066 g/cm <sup>3</sup> at 25 °C
<b>pH:</b>	No data	<b>Solubility:</b>	Insoluble in water
<b>Melting / freezing point:</b>	26°C	<b>Partition coefficient (n-octanol/water):</b>	No data
<b>Low / high boiling point:</b>	113°C	<b>Auto-ignition temperature:</b>	No data
<b>Flash Point:</b>	200°C	<b>Decomposition temperature:</b>	225 °C at 1,013 hPa
<b>Evaporation rate:</b>	No data	<b>Viscosity:</b>	No data
<b>Flammability (solid, gas):</b>	No data	<b>Explosive properties:</b>	No data
<b>Upper/lower flammability or explosive limits:</b>	No data	<b>Oxidizing properties:</b>	No data

## 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**

LD50 Oral - Rat - 9,200 mg/kg

Remarks: Behavioral Somnolence (general depressed activity). Behavioral Ataxia. Nutritional and Gross Metabolic Changes in Body temperature decrease.

LC50 Inhalation - Rat - male and female - 1 h - > 2.24 mg/l (OECD Test Guideline 403)

**Skin Corrosion/Irritation**

No data available

**Serious Eye Damage/Irritation**

Eyes - Rabbit

Result: Moderate eye irritation

**Respiratory/Skin Sensitization**

in vivo assay - Guinea pig      Result: May cause sensitisation by inhalation.

in vivo assay – Mouse          Result: May cause sensitisation by skin contact.

**Germ Cell Mutagenicity**

Laboratory experiments have shown mutagenic effects.

Ames test

S. typhimurium Result: negative

Mutagenicity (micronucleus test) Rat - male

Result: negative

**Carcinogenicity**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diphenylmethane-4,4'-diisocyanate)

**Reproductive Toxicity**

Reproductive toxicity - Rat - Inhalation

Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.

**Specific Target Organ Toxicity – Single Exposure:**

Inhalation - May cause respiratory irritation. - Respiratory system

**Specific Target Organ Toxicity – Repeated Exposure:**

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Respiratory system

**Aspiration Hazard**

No data available

**Potential Health Effects – Miscellaneous**

RTECS: NQ9350000

Cough, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.

**Section 12 - Ecological Information****12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates      EC50 - Daphnia magna (Water flea) - 0.35 mg/l - 24 h

**12.2 Persistence and Degradability**

No data available

**12.3 Bioaccumulative Potential**

Bioaccumulation      Cyprinus carpio (Carp) - 28 d  
- 0.0008 mg/l

**12.4 Mobility in Soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other Adverse Effects**

No data available

**Section 13 - Disposal Considerations****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**Section 14 - Transport Information**

**14.1 UN number:** 3082

**14.2 UN proper shipping name:** Environmentally hazardous substance, liquid n.o.s. (bis(2-ethyl hexyl) phosphate)

**14.3 Transport hazard class(es):** 9

**14.4 Packing group:** III

**14.5 Environmental hazards:** Marine Pollutant

**14.6 Special precautions for user:** none known

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** not applicable

**Section 15 - Regulatory Information**



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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and EC No. 2020/878.

**Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals** : Not applicable

**REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).** : Not applicable

**REACH Annex XIV: REACH Authorization List** : Not applicable

**REACH Annex XVII: REACH Restricted Substance List:**  
Diphenylmethane-4,4'-diisocyanate Entry 74

**Regulation (EC) No 2019/1021 on substances that deplete the ozone layer** : Not applicable

**Regulation (EC) No 850/2004 on persistent organic pollutants** : Not applicable

**Seveso III:** : Not applicable

**15.2 Chemical safety assessment**

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

**16 - Other Information**

**Revision Date: January 2, 2023 Version 6.0**

**Full text of H-Statements referred to under Sections 2 and 3.**

H315 Causes skin irritation  
 H317 May cause an allergic skin reaction  
 H319 Causes serious eye irritation  
 H332 Harmful if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 May cause respiratory irritation  
 H351 Suspected of causing cancer.  
 H373 May cause damage to organs through prolonged or repeated exposure.

**Abbreviations and acronyms:**

ATE - Acute Toxicity Estimate; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006; EINECS - European Inventory of Existing Commercial Chemical Substances

ELINCS - European List of Notified Chemical Substances; CAS# - Chemical Abstract Service number; PPE - Personal Protection Equipment; Kow - octanol-water partition coefficient; DNEL - Derived No Effect Level; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); NOEC - No Observed Effect Concentration; PNEC - Predicted No Effect Concentration; RMM - Risk Management Measure; OEL - Occupational Exposure Limit; PBT - Persistent, Bioaccumulative and Toxic; vPvB - Very Persistent and Very Bioaccumulative; STOT - Specific Target Organ Toxicity; CSA - Chemical Safety Assessment; EN - European Standard; UN - United Nations; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; WGK -

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