



# SAFETY DATA SHEET

SDS No. 443AEU

according to Regulation (EC)

No. 1907/2006 as amended

Version 1 Revision Date December 2, 2022

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

### 1.1 Product Identifier

Trade Name: **Part A: SMASH!Plastic®**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

General Use: Polyurethane Elastomer

Restrictions on Use: Do-It-Yourself Applications

### 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 Fax (610) 252-6200

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

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## 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

**H331** Acute toxicity, inhalation – Category 3

**H334** Respiratory sensitization – Category 1

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

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

H331 Toxic if inhaled  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 May cause respiratory irritation

**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**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 Wash skin 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/protective clothing/eye protection/face protection.  
 P285 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.  
 P311 Call a POISON CENTER or doctor/physician.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337 + P313 If eye irritation persists: Get medical advice/attention.  
 P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER doctor/physician.  
 P362 Take off contaminated clothing.

**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.

**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.

UFI: DDS2-X0X8-G00P-4PYM

**Section 3 - Composition / Information on Ingredients****3.1 Substances/Mixtures****Hazardous ingredients according to Regulation (EC) No 1272/2008**

Chemical name	Classification	Concentration (% wt)
<b>4,4' Methylene-dicyclohexyl diisocyanate</b>		
CAS-No. 5124-30-1 EC-No. 225-863-2 Index-No. 615-009-00-0	H315 Causes skin irritation H317 May cause an allergic skin reaction H319 Causes serious eye irritation H331 Toxic if inhaled	35 – 85

	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 May cause respiratory irritation	
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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**

**Acute:** Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g. fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Causes skin irritation with symptoms of reddening, itching, and swelling. Can cause sensitization. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

May cause eye irritation with symptoms of reddening, tearing, stinging, and swelling. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

May cause irritation of the digestive tract; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

**Delayed:** Symptoms affecting the respiratory tract can also occur several hours after overexposure.

**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**

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
Dicyclohexylmethane-4,4'-di-isocyanate	5124-30-1	TWA	0.02 mg/m <sup>3</sup>	UK. EH40 WEL - Workplace Exposure Limits
		STEL	0.07 mg/m <sup>3</sup>	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 'Asthmagen? 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>		

#### Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Dicyclohexylmethane 4,4'-di-isocyanate	5124-30-1	urinary diamine	1 µmol/mol creatinine	Urine	UK. Biological monitoring guidance values
	Remarks	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.

**Medical Surveillance**

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

<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 liquid	<b>Vapor pressure:</b>	No data
<b>Odor:</b>	Odorless	<b>Vapor density (Air=1):</b>	No data
<b>pH:</b>	No data	<b>Evaporation rate:</b>	No data
<b>Flash Point:</b>	187°C	<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>	1.0788
<b>Low / high boiling point:</b>	No data	<b>% Volatile:</b>	0% (v/v), 0% (w/w)

<b>Upper flammability limits:</b>	No data	<b>Auto-ignition temperature:</b>	225°C
<b>Lower flammability limits:</b>	No data	<b>Viscosity:</b>	240 centipoise @ 25°C

## 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

4,4' Methylene-dicyclohexyl diisocyanate CAS-No. 5124-30-1

Oral: > 5000 mg/kg (calculated)

Inhalation: 12.54 mg/l, 1h

#### Skin Corrosion/Irritation

4,4' Methylene-dicyclohexyl diisocyanate CAS-No. 5124-30-1

Skin – Rabbit Result: Irritating to skin. - 4 h (OECD Test Guideline 404)

#### Serious Eye Damage/Irritation

4,4' Methylene-dicyclohexyl diisocyanate CAS-No. 5124-30-1

Eyes – Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)

#### Respiratory/Skin Sensitization

4,4' Methylene-dicyclohexyl diisocyanate CAS-No. 5124-30-1

Buehler Test – Guinea pig Result: May cause sensitisation by skin contact. - Mouse

Result: May cause sensitisation by inhalation.

#### Germ Cell Mutagenicity

Based on available data the classification criteria are not met.

#### Carcinogenicity

Based on available data the classification criteria are not met.

#### Reproductive Toxicity

Based on available data the classification criteria are not met.

### Specific Target Organ Toxicity – Single Exposure

May cause respiratory irritation

### Specific Target Organ Toxicity – Repeated Exposure

May cause respiratory irritation

### Aspiration Hazard

Based on available data the classification criteria are not met.

### Potential Health Effects – Miscellaneous

No data available

## Section 12 - Ecological Information

### 12.1 Toxicity

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - 1.2 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC0 - Daphnia magna (Water flea) - $\geq$ 8.3 mg/l - 48 h
Toxicity to algae	static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - $>$ 5 mg/l - 72 h
Toxicity to bacteria	EC50 - Sludge Treatment - 191 mg/l - 3 h (OECD Test Guideline 209)

### 12.2 Persistence and Degradability

Biodegradability	aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable.
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### 12.3 Bioaccumulative Potential

No data available

### 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

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 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**  
4,4´ Methylene-dicyclohexyl diisocyanate Listed under Annex XVII of REACH. 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: Directive: Categories H2**

### 15.2 Chemical safety assessment

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

## 16 - Other Information

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

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

**Version 1 Revision Date**

### 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 - Water Hazard Class

**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.

This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH).

Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.