SAFETY DATA SHEET
SDS No. 465A

Revision Date: January 2, 2021 Version 2.0
☑ GHS Compliant

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

1.1 Product Identifier
Trade Name: **Part A: FlexFoam-iT X and 14**

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 FAX (610) 252-6200

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)

H315 Skin corrosion/irritation – Category 2
H317 Skin sensitization – Category 1
H320 Eye Damage/irritation - Category 2B
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)

2.2 GHS Label elements, including precautionary statements

Pictogram(s):

Signal word: Danger

Health Hazards

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes 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 (Olfactory organs) through prolonged or

repeated exposure (inhalation).

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 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.
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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P332 + P313	IF SKIN irritation occurs: Get medical advice/attention.
P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
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.

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 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:

Chemical name	CAS-No.	Concentration (%wt)
4,4' Methylene bis(phenylisocyanate) (MDI)	101-68-8	15 – 35
Benzene, 1,1'-methylenebis[4-isocyanato-], homopolymer	25686-28-6	5 – 10
Methylenediphenyl diisocyanate	26447-40-5	< 1.5

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, if necessary.
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 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
4,4' Methylene bis(phenylisocyanate) (MDI)	101-68-8	0.005 ppm	TWA	ACGIH
		0.2 mg/m3 0.02 ppm	C	OSHA Z-1
		0.05 mg/m3 0.005 ppm	TWA	NIOSH REL

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

Appearance:	Amber liquid	**Vapor pressure:**	< 0.00016 mmHg (68 °F)
Odor:	Musty odor	**Vapor density (Air=1):**	> 1
pH:	No data	**Evaporation rate:**	No data
Flash Point:	>300 °F	**Solubility in water:**	Insoluble
Melting / freezing point:	37°F	**Specific Gravity (H2O=1, at 4 °C):**	No data
Low / high boiling point:	>300 °F	**Relative density:**	No data
Upper flammability limits:	No data	**Decomposition temperature:**	No data
Lower flammability limits:	No data	**Viscosity:**	30 – 100 cPs

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
Calculated based on MDI
LD50 oral (rat): > 6,250 mg/kg
LC50 inhalation (rat): >6.25 mg/l (OECD Guideline 403)
LD50 dermal (rabbit): > 29,400 mg/kg

Chronic Exposure: NOAEL: 0.6 mg/m3; LOAEL: 3.1 mg/m3 (based on MDI)

Skin Corrosion/Irritation
Draize test (rabbit): irritating (based on MDI).

Serious Eye Damage/Irritation
Draize test (rabbit): irritating (based on MDI).

Respiratory/Skin Sensitization
Buehler test (guinea pig): sensitizing
Mouse Local Lymph Node Assay (LLNA): sensitizing, can cause skin sensitization.
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
A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure. OECD Guideline 453 rat inhalation 0, 0.2, 1, 6 mg/m3 result: lung tumors.

Reproductive Toxicity
Repeated inhalation uptake of the substance did not cause damage to the reproductive organs.
Assessment of teratogenicity showed that the substance did not cause malformations in animal studies, however toxicity to development was observed at high doses that were toxic to the parental animals.

Development:
OECD Guideline 414 rat inhalation 0, 1, 4, 12 mg/m3
NOAEL Mat: 4 mg/m3
NOAEL Teratogenic: 4 mg/m3

Specific Target Organ Toxicity – Single Exposure
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

LC0 (96 h): > 1,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)
EC50 (24 h): > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
EC0 (72 h): 1,640 mg/l (growth rate), Scenedesmus subspicatus, (OECD Guideline 201, static

12.2 Persistence and Degradability

Poorly biodegradable (0% BOD OECD Guideline 302 C). This product is unstable in water. The elimination data also refer to products of hydrolysis.

12.3 Bioaccumulative Potential

Significant accumulation in organisms is not to be expected. Bioconcentration factor 200 (28 d) Cyprinus carpio (OECD Guideline 305 E)

12.4 Mobility in Soil

Adsorption to solid soil phase is not expected.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other Adverse Effects

The substance will not evaporate into the atmosphere from the water surface.

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 June 2020)

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

Component	CAS#	Concentration (%wt)
4,4' Methylene bis(phenylisocyanate) (MDI)	101-68-8	15 – 35

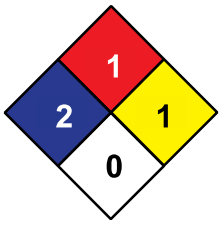
KEEP OUT OF REACH OF CHILDREN

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

HMIS	
H	2
F	1
R	1



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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; 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.

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.