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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>OSI SF450+ Polyurethane</b>	<b>IDH number:</b>	1943974
<b>Product type/use:</b>	1-component-polyurethane adhesive	<b>Region:</b>	United States
<b>Restriction of Use:</b>	None identified	<b>Contact information:</b>	
<b>Company address:</b>		Telephone: +1 (860) 571-5100	
Henkel Corporation		MEDICAL EMERGENCY Phone: Poison Control Center	
One Henkel Way		1-877-671-4608 (toll free) or 1-303-592-1711	
Rocky Hill, Connecticut 06067		TRANSPORT EMERGENCY Phone: CHEMTREC	
		1-800-424-9300 (toll free) or 1-703-527-3887	
		Internet: www.henkelna.com	

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION.  
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.  
 MAY CAUSE RESPIRATORY IRRITATION.  
 CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Do not breathe dust or fumes. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Talc	14807-96-6	>= 40 - < 50
Methylenebis(phenylisocyanate)	101-68-8	>= 10 - < 20
Hydrocarbon C11-25 dearomatized	64742-46-7	1 - 5
Methylene bisphenyl isocyanate	26447-40-5	1 - 5

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

**Inhalation:** If inhaled, immediately remove the affected person to fresh air. Immediate medical treatment necessary.

**Skin contact:** Wash affected area immediately with soap and water. If symptoms develop and persist, get medical attention. Remove contaminated clothes.

**Eye contact:** In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

**Ingestion:** Do not induce vomiting. Rinse the mouth. Drink plenty of water. Immediate medical advice necessary.

**Symptoms:** See Section 11.

**Notes to physician:** An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate. Treatment based on judgement of the physician in response to reactions of the patient.

### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water fog. Foam Carbon dioxide.

**Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

**Unusual fire or explosion hazards:** None known.

**Hazardous combustion products:** Nitrous gases Irritating fumes. Isocyanate vapors.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Do not empty into drains / surface water / ground water.

**Clean-up methods:**

Ensure adequate ventilation. Scrape up spilled material and place in a closed container for disposal. Wear suitable protective clothing, gloves and eye/face protection.

## 7. HANDLING AND STORAGE

**Handling:**

Avoid contact with eyes, skin and clothing. Avoid extreme temperatures. Exposure to vapors of heated MDI can be extremely dangerous. Wash thoroughly after handling. Protect from moisture. Use only with adequate ventilation.

**Storage:**

For safe storage, store between 15 °C (59°F) and 30 °C (86°F) Avoid moisture. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Talc	2 mg/m3 TWA Respirable fraction.	0.1 mg/m3 TWA Respirable. 2.4 MPPCF TWA Respirable. 20 MPPCF TWA	None	50 ppm
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m3) Ceiling	None	None
Hydrocarbon C11-25 dearomatized	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist.	None	None
Methylene bisphenyl isocyanate	None	None	None	None

**Engineering controls:**

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

**Respiratory protection:**

Observe OSHA regulations for respirator use (29 CFR 1910.134). Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. Respirator with combination filter for vapor/particulate. However, due to the poor warning properties of MDI, proper fit and timely replacement of filter elements must be ensured.

**Eye/face protection:**

Safety glasses with side-shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:**

Suitable protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Highly viscous, Solid
<b>Color:</b>	Tan
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Neutral, Weakly, Alkaline
<b>Vapor pressure:</b>	Not available.
<b>Boiling point/range:</b>	172 - 341 °C (341.6 - 645.8 °F)no method
<b>Melting point/ range:</b>	Not applicable
<b>Specific gravity:</b>	1.294 - 1.378
<b>Vapor density:</b>	Heavier than air
<b>Flash point:</b>	> 93.34 °C (> 200.01 °F)
<b>Flammable/Explosive limits - lower:</b>	1.6 %
<b>Flammable/Explosive limits - upper:</b>	10.2 %

<b>Autoignition temperature:</b>	No information available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Slightly soluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 3 %; 76 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Contact with moisture, other materials that react with isocyanates, or temperatures above 350° F (177° C), may cause polymerization.
<b>Hazardous decomposition products:</b>	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. nitrogen oxides Aromatic isocyanates. carbon oxides.
<b>Incompatible materials:</b>	Oxidizing agents. Alcohols. Water.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Avoid moisture. Keep away from open flames, hot surfaces and sources of ignition. Prolonged exposure to heat.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Inhalation, Skin, Eyes, Ingestion

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has been reported to cause lung damage. Dryness of nasal passages, sore throat, cough, tightness of chest, shortness of breath. Persons suffering from allergic reactions to isocyanates should avoid contact with the product. This product may cause sensitization by inhalation and skin contact. May cause respiratory tract irritation.
<b>Skin contact:</b>	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals. This product may discolor the skin.
<b>Eye contact:</b>	Contact with eyes will cause irritation.
<b>Ingestion:</b>	Ingestion of this product may cause nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
Methylenebis(phenylisocyanate)	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l	Irritant, Respiratory, Allergen
Hydrocarbon C11-25 dearomatized	None	Irritant
Methylene bisphenyl isocyanate	None	Allergen, Irritant, Mutagen, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	Group 2B	No
Methylenebis(phenylisocyanate)	No	No	No
Hydrocarbon C11-25 dearomatized	No	No	No
Methylene bisphenyl isocyanate	No	No	No

## 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methylenebis(phenylisocyanate) (CAS# 101-68-8).

**California Proposition 65:** No California Proposition 65 listed chemicals are known to be present.

### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** This Safety Data Sheet contains changes from the previous version in Section(s): 9

**Prepared by:** Product Safety and Regulatory Affairs

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