



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

### **FX-3532-E LAMINATING ADHESIVE**

Version Number 1.5  
Revision Date 03/13/2014

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

**POLYONE CORPORATION**  
8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE  
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure  
number or accident).  
Product name : FX-3532-E LAMINATING ADHESIVE  
Product code : FO00004683  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Methyl isobutyl ketone	108-10-1	30 - 60
Cyclohexanone	108-94-1	30 - 60

#### 3. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Flammable. May be harmful if inhaled. Harmful if swallowed. May cause skin irritation. Flammable liquid and vapor. Vapors may be irritating to eyes and respiratory tract. This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

##### POTENTIAL HEALTH EFFECTS

**Routes of Exposure:** : Inhalation, Skin contact, Ingestion

##### Acute exposure

Inhalation : Excessive inhalation of product vapors may cause respiratory irritation, headaches, dizziness, and/or nausea.  
Ingestion : May be harmful if swallowed. May cause nausea, abdominal spasms and irritation of the mucous membranes.  
Eyes : Liquid, aerosol, or vapors of this product are irritating and may cause tearing, reddening, and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.  
Skin : Prolonged or repeated skin contact can cause de-fatting and drying of

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the skin which may result in skin irritation and dermatitis (rash).

**Chronic exposure** : Refer to Section 11 for Toxicological Information.

**Medical Conditions Aggravated by Exposure:** : Individuals with chronic respiratory disorders (i.e. asthma, chronic bronchitis, etc.) may be adversely affected by any airborne contaminant.

**4. FIRST AID MEASURES**

- Inhalation** : Move to fresh air in case of accidental inhalation of vapours or decomposition products. Seek medical attention after significant exposure.
- Ingestion** : Do not induce vomiting without medical advice. If conscious, drink plenty of water. Seek medical attention if necessary.
- Eyes** : Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.
- Skin** : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

**5. FIREFIGHTING MEASURES**

- Flash point** : Less than 75 °F (24 °C)
- Flammable Limits**
- Upper explosion limit : no data available
  - Lower explosion limit : no data available
- Auto-ignition temperature** : no data available
- Suitable extinguishing media** : Carbon dioxide blanket, Water, Foam, Dry chemical.
- Special Fire Fighting Procedures** : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards** : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), other hazardous materials, and smoke are all possible.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions** : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions** : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.
- Methods for cleaning up** : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place

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in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE**

- Handling : Flammable liquid. Keep away from flames, hot surfaces, and sources of ignition. Use of non-sparking or explosion-proof equipment may be necessary. Never use compressed air for transferring product. Ensure all equipment is electrically grounded before beginning transfer operations. Take measures to prevent the build up of static electricity. Use only in area provided with appropriate exhaust ventilation.
- Storage : Store below 120 °F (49 °C) Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Flammable Liquid. Check local fire regulations for sprinkler or explosion proof storage location requirements.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Respiratory protection : Airborne contaminant levels should be maintained below the occupational exposure guidelines. When respiratory protection is required, use an approved air-purifying or positive pressure supplied-air respirator, depending upon potential airborne contaminant concentrations. Employees using respirators must be properly trained.
- Eye/Face Protection : Wear goggles or face shield during operations that present a splash potential.
- Hand protection : Protective gloves Protective gloves. Refer to equipment supplier to ensure protection.
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Additional Protective Measures : Safety shoes
- General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas.
- Engineering measures : Provide general and/or local exhaust ventilation to control airborne contaminant levels below the exposure guidelines.

Exposure limit(s)

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Components	Value	Exposure time	Exposure type	List:
Methyl isobutyl ketone	20 ppm	Time Weighted Average (TWA):		ACGIH
	75 ppm	Short Term Exposure Limit (STEL):		ACGIH
	50 ppm 205 mg/m3	Recommended exposure limit (REL):		NIOSH
	75 ppm 300 mg/m3	Short Term Exposure Limit (STEL):		NIOSH
	100 ppm 410 mg/m3	PEL:		OSHA Z1
	50 ppm 205 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	75 ppm 300 mg/m3	Short Term Exposure Limit (STEL):		OSHA Z1A
	50 ppm 205 mg/m3	Time Weighted Average (TWA):		MX OEL
	75 ppm 307 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	Cyclohexanone	20 ppm	Time Weighted Average (TWA):	
50 ppm 200 mg/m3		PEL:	Vapor and aerosol.	OSHA Z1
50 ppm		Short Term Exposure Limit (STEL):		ACGIH

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: liquid	Evaporation rate	: Faster than Butyl Acetate
Appearance	: liquid	Specific Gravity	: Not determined
Colour	: NO PIGMENT	Bulk density	: Not applicable
Odour	: solvent-like	Vapour pressure	: not determined
Melting point/range	: Not applicable	Vapour density	: Heavier than air.
Boiling Point:	: no data available	pH	: not determined
Water solubility	: negligible		

**10. STABILITY AND REACTIVITY**

Stability	: The product is stable if stored and handled as prescribed.
Hazardous Polymerization	: Will not occur.
Conditions to avoid	: Keep away from oxidizing agents and open flame. Heat, flames and sparks.
Incompatible Materials	: Incompatible with strong acids and oxidizing agents.
Hazardous decomposition	: Carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), other hazardous

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products materials, and smoke are all possible.

**11. TOXICOLOGICAL INFORMATION**

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
108-10-1	Methyl isobutyl ketone	Systemic effects	central nervous system (CNS), reproductive system.
		Irritant	Eyes.
108-94-1	Cyclohexanone	Systemic effects	Eyes, Skin, Respiratory system, Liver, Kidney, central nervous system (CNS).

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
108-10-1	Methyl isobutyl ketone	LC50	100 gm/m3	rat
		LC50		rat
		Oral LD50	2,080 mg/kg	rat
		Dermal LD50	16,000 mg/kg	rabbit
108-94-1	Cyclohexanone	LC50	8000 ppm	rat
		Oral LD50	1620 ul/kg	rat

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
108-10-1	Methyl isobutyl ketone	no	2B	no

IARC Carcinogen Classifications:

- 1 - The component is carcinogenic to humans.
- 2A - The component is probably carcinogenic to humans.
- 2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

- 1 - The component is known to be a human carcinogen.
- 2 - The component is reasonably anticipated to be a human carcinogen.

**12. ECOLOGICAL INFORMATION**

Persistence and degradability : no data available

Environmental Toxicity : no data available

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Bioaccumulation Potential : no data available  
Additional advice : no data available

**13. DISPOSAL CONSIDERATIONS**

Product : Dispose of properly. Do not dump into sewers, on the ground, or into any body of water. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

**14. TRANSPORT INFORMATION**

U.S. DOT Classification  
Proper Shipping Name: Adhesives  
Technical Name:  
Hazard Class / Division 3  
UN Number UN1133  
Packing Group II  
Label Required 3

ICAO/IATA Refer to specific regulation.

IMO/IMDG (maritime) Refer to specific regulation.

**15. REGULATORY INFORMATION**

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

California Proposition : WARNING! This product contains a chemical known to the State of

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65 California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight percent
METHYL ISOBUTYL KETONE	108-10-1	30.00 - 60.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Methyl isobutyl ketone	108-10-1	30.00 - 60.00	

WHMIS Classification : D1B, B2, D1B

WHMIS Ingredient Disclosure List

CAS-No.
108-10-1
108-94-1

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

- Australia AICS : Not determined
- China IECS : Not determined
- Europe EINECS : Not determined
- Japan ENCS : Not determined
- Korea KECI : Not determined
- Philippines PICCS : Not determined

**16. OTHER INFORMATION**



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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.