

Issue Date: 01-23-2015

MSDS Number: Z01391

### SECTION 1: Identification

---

#### 1.1. Product identifier

Trade Name/Designation: **Zeonex 330R**

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

Use: Optical / Medical Device / Electrical Applications

#### 1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier Name and Address:	Zeon Chemicals L.P. 4111 Bells Lane Louisville, Kentucky 40211	Customer Service:	1-800-735-3388 (502)-775-2000
---	--	-------------------	----------------------------------

#### 1.4. Emergency telephone number

24 hours per day/7 days per week (English only):	CHEMTREC: (800) 424 - 9300 Outside the U.S. Call Collect: 001 (703) 527-3887
--	---

### SECTION 2: Hazard(s) identification

---

#### 2.1. Classification of the substance or mixture

GHS Classification	Does not meet classification criteria.
GHS Signal Word:	None

#### 2.2. Label elements

GHS Label Pictogram:	Not Applicable
----------------------	----------------

**2.3. Other hazards** As supplied, this product is not expected to cause any adverse health effects. Processing operations may produce vapors or dust that may cause eye, skin, and respiratory tract irritation. Toxic combustion products may be released under fire conditions. Processing and use of this product may cause static charge which may ignite flammable materials. Contact with product at elevated temperatures can result in thermal burns.

### SECTION 3: Composition/information on ingredients

---

Chemical Name	Amount (wt %)	CAS #	GHS Classification
Polycycloolefin Resin	~ 100	Proprietary	None

Refer to Section 8 for Occupational Exposure Limits (OELs)

---

## SECTION 4: First-aid measures

---

### 4.1. Description of first aid measures

Following Inhalation:	Remove to fresh air. Seek medical attention if cough or other symptoms develop or persist.
Following Skin Contact:	Wash with soap and water. Get medical attention if irritation develops or persists. If molten material contacts skin, cool rapidly with water. Do not attempt to remove material from skin. Seek immediate medical attention for thermal burns.
Following Eye Contact:	Treat as any foreign particulate matter. Do not rub eyes. Flush eyes with running water for several minutes while holding eyelids open. Consult a physician if irritation persists.
Following Ingestion:	Normally not needed. If large quantities are ingested or if you feel unwell, call your local Poison Control Center (1-800-222-1222 in the U.S.) or physician.

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

At processing temperatures, the combined ingredients (elastomer and other processing ingredients) may emit fumes and vapors that may cause irritation to the eyes. Contact with product at elevated temperatures can result in thermal burns. Processing operations may create vapors or fumes which may cause respiratory tract irritation.

## SECTION 5: Fire-fighting measures

---

### 5.1. Extinguishing media

Use extinguishing media suitable for Class A fires (ordinary combustibles). Carbon dioxide is generally not recommended for use on Class A fires as a lack of cooling capacity may result in reignition.

### 5.2. Special hazards arising from the substance or mixture

Product will burn in a fire. Keep container tightly closed when not in use. Store away from heat, sparks, and other sources of ignition. Processing and use of this product may cause static charge which may ignite flammable materials. Take precautionary measures against static discharges. Special precautions must be taken if this product is ground or otherwise formed into a fine powder or dust since many organic substances in these forms present a dust explosion hazard. Dust in sufficient quantities may be ignited in air. Minimize dust generation and accumulation. Minimize activities which will float or suspend particles in air. Protect from sources of ignition.

Toxic gases may be formed upon combustion and represent a hazard to firefighters. See Section 10 for information on combustion products. Laboratory tests for thermal properties were conducted using OECD Guidelines. The results are indicated below:

93/105/EC Annex VIID 3.10 (Flammability (solids)): Not highly flammable

93/105/EC Annex VIID 3.11 (Explosive properties): Not explosive

93/105/EC Annex VIID 3.12 (Relative self-ignition temperature for solids): Does not self ignite

93/105/EC Annex VIID 3.16 (Thermal stability): Stable at room temperature

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode (NIOSH approved or equivalent) and full protective gear.

## SECTION 6: Accidental release measures

---

### 6.1. Personal precautions, protective equipment and emergency procedures

No special requirements.

### **6.2. Environmental precautions**

As with all industrial chemicals, use of good chemical hygiene and environmental stewardship practices is recommended.

### **6.3. Methods and material for containment and cleaning up**

With a shovel or scoop place into appropriate containers for reuse, recycle or disposal.

**6.4. Reference to other sections** Refer to Section 8, Exposure Control/Personal Protection.

## **SECTION 7: Handling and storage**

---

### **7.1. Precautions for safe handling**

Keep away from sources of ignition Processing and use of this product may cause static charge which may ignite flammable materials. Take precautionary measures against static discharges. Use bonding and grounding when transferring quantities of material. Product will emit fumes and vapors when heated to processing temperatures. Use only with adequate ventilation. Do not breathe (dust, vapor or fumes). Wash thoroughly after handling. Do not eat, drink or smoke in processing areas.

Clean up following normal processing must be performed with adequate ventilation. Elastomer may be held at process temperatures for a short time without significant thermal degradation. However exposure to elevated temperatures or excessive time will result in decomposition. Equipment should not be shut down for extended time periods with compound in it or decomposition may occur.

Processing fume condensates, which may include toxic contaminants, may be combustible and should be periodically removed from exhaust hoods, ductwork, and other surfaces. Protective clothing and gloves should be worn during cleanup operations to prevent skin contact (Refer to Section 8, Exposure Controls/Personal Protection).

Combustible dust clouds may be created where operations produce dust. Minimize dust generation and accumulation, especially on horizontal surfaces and duct work. Handling and processing operations should be conducted in accordance with NFPA-654 or similar best practices.

Abnormal conditions such as equipment malfunction or using improper equipment or procedures, or hangup or stagnation of material during processing may cause decomposition. Employees involved in removing decomposing material should be provided suitable air-supplied respirators, such as an approved positive pressure self-contained breathing apparatus.

Compounding ingredients added to elastomer products may require special handling. It is the user's responsibility to follow the recommended precautions of the individual additive suppliers.

Post-processing operations involving heat sufficient to result in polymer breakdown emitting smoke and fumes should be conducted in such a manner to avoid inhalation of fumes. Local exhaust ventilation and respiratory protection may be required.

### **7.2. Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place away from direct light to maintain quality.

## SECTION 8: Exposure controls/personal protection

---

### 8.1. Control parameters

Chemical Name:	OSHA			ACGIH	
	PEL	AL	STEL	TLV	STEL
Polycycloolefin Resin	NE	NE	NE	NE	NE

PEL = Permissible Exposure Limit; AL = Action Limit; NE = Not Established; RD = Respirable Dust; STEL = Short Term Exposure Limit; TD = Total Dust; TLV = Threshold Limit Value

### 8.2. Exposure controls

**Appropriate Engineering Controls** No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

#### Individual Protection Measures

**Eye/Face Protection:** Follow facility guidelines. Additionally, chemical splash goggles and a face shield should be worn when handling heated or molten material to prevent thermal burns to the eyes or face.

**Skin Protection** Use of proper chemical hygiene practices is recommended. When material is heated, wear chemically resistant thermally insulating gloves to protect against thermal burns.

**Respiratory Protection** Respiratory protection is not typically required during normal use and handling operations where general dilution or local exhaust ventilation is adequate to control exposures. NIOSH approved respiratory protection may be needed if vapor or dust is generated during processing or if the product is ground into a fine powder. Wear a positive pressure air-supplied respirator in situations where there may be potential for elevated airborne exposure such as during equipment malfunction, or product hangup or stagnation during processing that may result in decomposition.

## SECTION 9: Physical and chemical properties

---

### 9.1. Information on basic physical and chemical properties

<b>Appearance:</b>	Colorless Solid
<b>Odor:</b>	None
<b>Odor Threshold:</b>	Not Determined
<b>Water Solubility:</b>	Insoluble
<b>Vapor Pressure:</b>	Negligible
<b>Vapor Density (Air=1):</b>	Not Applicable
<b>Relative Density (water = 1):</b>	0.95
<b>pH:</b>	Not Determined
<b>Volatiles (minus H<sub>2</sub>O) w/w%:</b>	<0.0001
<b>Evaporation Rate (water = 1):</b>	Not Applicable
<b>Viscosity</b> (B-type viscometer @ 60 rpm):	Not Applicable
<b>Octanol/Water Partition Coefficient:</b>	Not Determined
<b>Melting Point/Freezing Point (°F):</b>	Not Determined
<b>Initial Boiling Point:</b>	Not Applicable
<b>Flash Point:</b>	Not Applicable
<b>Autoignition Temperature (°F):</b>	Not Determined
<b>Lower Explosive (Flammable) Limit:</b>	Not Applicable
<b>Upper Explosive (Flammable) Limit:</b>	Not Applicable
<b>Decomposition Temperature:</b>	Not Determined
<b>Flammability (solid/gas):</b>	Not Determined

## SECTION 10: Stability and reactivity

---

<b>10.1. Reactivity</b>	Hazardous polymerization will not occur.
<b>10.2. Chemical stability</b>	This material is stable when properly handled and stored.
<b>10.3. Possibility of hazardous reactions</b>	None Known
<b>10.4. Conditions to avoid</b>	Overheating
<b>10.5. Incompatible materials</b>	As with all organic materials, avoid contact with strong oxidizers and reducing agents.
<b>10.6. Hazardous decomposition products</b>	Carbon monoxide, Carbon dioxide, Hydrocarbons

## SECTION 11: Toxicological information

---

### 11.1. Information on toxicological effects

**Routes of Entry:** Skin contact; Eye contact; Process Vapor/Dust Inhalation.

**Symptoms of Overexposure:** At processing temperatures, the combined ingredients (elastomer and other processing ingredients) may emit fumes and vapors that may cause irritation to the eyes. Contact with

product at elevated temperatures can result in thermal burns. Processing operations may create vapors or fumes which may cause respiratory tract irritation.

Acute Toxicity:	Description of Immediate Effects		
	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Polycycloolefin Resin	No data available	No data available	No data available

Carcinogenicity	Description of Delayed Effects	
	IARC	NTP
Polycycloolefin Resin	Not Listed	Not Listed

## SECTION 12: Ecological information

---

**Toxicity:** No information available.

## SECTION 13: Disposal considerations

---

### 13.1. Waste treatment methods

Waste resulting from this product as supplied is not known to be classified as a hazardous waste per the current listings and characteristics contained in 40 CFR Part 261, and its Appendices. It is the generator's responsibility to determine, per the regulation, the applicability of the Resource Conservation and Recovery Act (RCRA), as well as all state, local, or other governmental agency waste disposal regulations, to the particular waste materials prior to treatment or disposal.

## SECTION 14: Transport information

---

**U.S. Department of Transportation UN Number:** This product is not defined or designated as a hazardous material by the U.S. Department of Transportation under Title 49 of the Code of Federal Regulations.

**Canadian Transport of Dangerous Goods (TDG):** This product is not classified as a dangerous good for transport.

**Mexican Regulation for the Land Transport of Hazardous Materials and Wastes** This product is not classified as a dangerous good for transport.

**International Air Transport Authority (IATA/ICAO) UN Number:** This product is not classified as a dangerous good for transport.

**International Maritime**

**Organization (IMO) UN Number:**

This product is not classified as a dangerous good for transport.

**SECTION 15: Regulatory information**

---

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

**Chemical Inventory Status:**

<b>Australia (AICS):</b>	Present	<b>Canada (DSL):</b>	Present
<b>China (IECSC):</b>	Present	<b>EU (EINECS/ELINCS):</b>	Present
<b>United States (TSCA):</b>	Present	<b>Korea (KECL):</b>	Present
		<b>Taiwan (NECSI):</b>	Present

**United States Regulatory Status**

EPCRA Section 311/312 (SARA III) Hazard Categories: None

This product contains the following chemical(s) exceeding the *de minimis* amount subject to reporting under SARA 313: None

**California Proposition 65** WARNING: Contains the following chemical(s) known to the State of California to cause cancer or reproductive harm:  
None

**Canada**

**Ingredient Disclosure List** This product contains the following component(s) included on the Canadian Hazardous Products Ingredient Disclosure List exceeding the *de minimis* concentration subject to disclosure:  
None

**SECTION 16: Other information**

---

<b>NFPA Ratings*</b>	<b>HMIS Ratings**</b>	Key: 0=least; 1=slight; 2=moderate; 3=high; 4=extreme
Health Hazard: 2	Health Hazard: 0	
Fire: 1	Fire: 1	
Reactivity: 0	Physical Hazard: 0	
Special Hazard: None	PPE: PPE should be determined based on workplace conditions.	

\*National Fire Protection Association (NFPA) ratings identify hazards during a fire emergency.

\*\*Hazardous Materials Identification System (HMIS) ratings apply to products as packaged

Prepared by: This MSDS was prepared by Zeon Chemicals L.P.

Revision Summary: This document supersedes MSDS dated: 02-10-2012

User's This bulletin cannot cover all possible situations which the user may experience during

Responsibility

processing. Each aspect of your operation must be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

Disclaimer of Liability

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user.

END OF SDS