

## Flexrez 155

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Flexrez 155  
**Common Name:** Aliphatic Polyurethane Dispersion  
**SDS Number:** I70  
**Supplier Details:** Coatings for Industry, Inc.  
 319 Township Line Road  
 Souderton, PA 18964  
  
**Emergency:** Infotrac  
**Contact:** USA: 1-800-535-5053 / International :352-323-3500  
**Phone:** 215-723-0919  
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### 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):**  
 Health, Serious Eye Damage/Eye Irritation, 2 A

#### GHS Label elements, including precautionary statements

**GHS Signal Word:** **WARNING**

**GHS Hazard Pictograms:**



#### GHS Hazard Statements:

H319 - Causes serious eye irritation

#### GHS Precautionary Statements:

P264 - Wash skin and face thoroughly after handling.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P307 - IF eye irritation persists: Get medical attention

### 3 COMPOSITION/INFORMATION OF INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
*****	2-4%	Aliphatic Esters
112945-52-5	2-5%	Silicon Dioxide, Chemically Prepared
7732-18-5	50-60%	water
0	35-45%	Polyurethane polymer

## Flexrez 155

**4 FIRST AID MEASURES**

**Inhalation:** If inhaled, remove to fresh air. Get medical attention if irritation develops.

**Skin Contact:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Obtain medical attention.

**Ingestion:** If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

**5 FIRE FIGHTING MEASURES**

**Flash Point:** Greater than 200F

**Flash Point Method:** TCC

Extinguishing Media - Use water spray or fog, foam, dry chemical or CO<sub>2</sub>.

Fire Fighting Instructions - As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

Other Flammable Properties - Can burn in fire forming carbon dioxide and some carbon monoxide.

**6 ACCIDENTAL RELEASE MEASURES**

**Steps to be Taken in Case Material is Released or Spilled** - Ventilate area. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, state and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. Use personal protective equipment as described in Section 8.

**7 HANDLING AND STORAGE**

**Handling Precautions:** Wash thoroughly after handling. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing vapor or mist.

**Storage Requirements:** Store in a cool, dry place. Keep container closed when not in use. Keep from freezing.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** Use adequate ventilation.

**Personal Protective Equipment:** Respiratory Protection - A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator use. Personal Protective Equipment: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29 CFR 1910.132) be conducted before using this product.

Eye Protection: Wear safety glasses with side shields.

Skin Protection: Use impermeable gloves to minimize skin contact.

**Silicon dioxide, Chemically Prepared (112945-52-5)**

20 millions of particles per cubic foot of air TWA:Z3

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Milky white.	<b>Odor:</b>	Mild sweet odor
<b>Physical State:</b>	Liquid.	<b>Solubility:</b>	Miscible in water
<b>Spec Grav./Density:</b>	.95-1.05	<b>Percent Volatile:</b>	Approx. 40-45% by weight

## Flexrez 155

<b>10</b>	<b>STABILITY AND REACTIVITY</b>
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<b>Chemical Stability:</b>	Product is stable
<b>Conditions to Avoid:</b>	Protect from freezing
<b>Materials to Avoid:</b>	Oxidizing agents, isocynaates.
<b>Hazardous Decomposition:</b>	By Fire: Carbon Dioxide ; Carbon Monoxide ; Nitrogen oxides (NOx), Amines, other aliphatic fragments which have not been determined.
<b>Hazardous Polymerization:</b>	Hazardous polymerization will not occur.

<b>11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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Aliphatic Esters [4-5%]

Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: No skin irritation

Serious eye damage/eye irritation: Eyes - rabbit Result: No eye irritation  
(OECD Test Guideline 405)

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: Mammal ovary Result: negative

Mutagenicity (micronucleus test) rat - male and female

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: Not available

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Silicon Dioxide, Chemically Prepared (112945-52-5)**

Acute oral toxicity: LD50 Rat: > 5000 mg/kg Method: OECD Test Guideline 401

Acute inhalation toxicity: LC0 Rat: 0.139 mg/l / 4 h Method: analogous OECD method  
(maximum concentration attainable in experiments) No deaths occurred. comparable product

Acute dermal toxicity: LD50 Rabbit: > 5000 mg/kg comparable product

Skin irritation: Rabbit: not irritating Method: analogous OECD method

Eye irritation: Rabbit: not irritating Method: analogous OECD method

Sensitization: not known

Assessment of STOT single exposure: no evidence for hazardous properties

Assessment of STOT repeat exposure: no evidence for hazardous properties

## Flexrez 155

Risk of aspiration toxicity: No aspiration toxicity classification

Mutagenicity assessment: no evidence of mutagenic effects

Carcinogenicity: No evidence that cancer may be caused.

carcinogenicity assessment: Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

Toxicity to reproduction: no evidence of reproductiontoxic properties

Human experience: Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

Further information: The classification criteria are not met based on the available data.

12

**ECOLOGICAL INFORMATION**

Aliphatic Esters [4-5%]

Information on ecological effects

Toxicity:

Toxicity to fish static test LC50 - Lepomis macrochirus (Bluegill) - 30.838 mg/l - 96 h.

Persistence and degradability: Biodegradability Result:  $\geq 60\%$  - Readily biodegradable. (OECD Test Guideline 301D)

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

**Silicon Dioxide, Chemically Treated (112945-52-5)**

Toxicity

Toxicity to fish: LC50 (Brachydanio rerio):  $> 10000$  mg/l / 96 h Method: OECD 203

The reported toxic effects relate to the nominal concentration.

Toxicity in aquatic invertebrates: EC50 Daphnia magna:  $> 1000$  mg/l / 24 h Method: OECD 202

The reported toxic effects relate to the nominal concentration.

Persistence and degradability

Biodegradability: The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Bioaccumulation: Not to be expected.

Mobility in soil: No remarkable mobility in soil is to be expected.

Other adverse effects

Further Information: The classification criteria are not met based on the available data.

13

**DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state, and federal regulations. Incineration is the preferred method.

<b>14</b>	<b>TRANSPORT INFORMATION</b>
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Not regulated for transportation

<b>15</b>	<b>REGULATORY INFORMATION</b>
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Component (CAS#) [%] - CODES

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 Pentanedioic acid, dimethyl ester (1119-40-0) [2-4%] TSCA

Silicon Dioxide, Chemically Prepared (112945-52-5) [2-5%] TSCA

Water (7732-18-5) [50-60%] TSCA

Polyurethane polymer (0) [35-45%] TSCA

Regulatory CODE Descriptions

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 TSCA = Toxic Substances Control Act

<b>16</b>	<b>OTHER INFORMATION</b>
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