MATERIAL SAFETY DATA SHEET ORANGE CSPN

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	ORANGE CSPN
Product code	:	CC10095557
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Caprolactam	105-60-2	1 - 5
Titanium dioxide	13463-67-7	5 - 10

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to
Skin	eyes. : Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.



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Inhalation	:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
Ingestion	:	Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
Eyes	:	Rinse immediately with plenty of water, also under the eyelids, 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. FIRE-FIGHTING MEASURES
Flash point	:	Not applicable
Flammable Limits Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Autoignition temperature	:	Not applicable
Suitable extinguishing media	:	Carbon dioxide blanket, Water spray, Dry powder, Foam.
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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.
	6. A	CCIDENTAL RELEASE MEASURES
Personal precautions	:	Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
Environmental precautions	:	Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.
		7. HANDLING AND STORAGE
Handling	:	Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption

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	a	nd contamination. Keep in a d	ry, cool place.		
8. F	EXPOSURE	CONTROLS / PERSONAL	PROTECTION		
Respiratory protection	: N	lo personal respiratory protecti	ve equipment normally re	equired.	
Eye/Face Protection	: S	afety glasses with side-shields			
Hand protection	: P	rotective gloves			
Skin and body protection	: L	ong sleeved clothing			
Additional Protective Measures	: S	afety shoes			
General Hygiene Considerations		Iandle in accordance with good Vash hands before breaks and a		fety practice.	
Engineering measures	sures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.				
Exposure limit(s)					
Components	Value	Exposure time	Exposure type	List:	
Caprolactam	5 mg/m3	Time Weighted Average (TWA):	Inhalable fraction and vapor	ACGIH	
	1 mg/m3	Time Weighted Average (TWA):	Dust.	MX OEL	
	5 ppm 20 mg/m3	Time Weighted Average (TWA):	Vapor.	MX OEL	
	3 mg/m3	Short Term Exposure Limit (STEL):	Dust.	MX OEL	
	10 ppm 40	Short Term Exposure Limit	Vapor.	MX OEL	

	1 mg/m3	Time Weighted Average	Dust.	MX OEL
		(TWA):		
	5 ppm 20	Time Weighted Average	Vapor.	MX OEL
	mg/m3	(TWA):		
	3 mg/m3	Short Term Exposure Limit	Dust.	MX OEL
		(STEL):		
	10 ppm 40	Short Term Exposure Limit	Vapor.	MX OEL
	mg/m3	(STEL):		
Titanium dioxide	10 mg/m3	Time Weighted Average		ACGIH
		(TWA):		
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average	as Ti	MX OEL
		(TWA):		
	20 mg/m3	Short Term Exposure Limit	as Ti	MX OEL
		(STEL):		
		CAL AND CHEMICAL DDO		

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odour Melting point/range
- Solid
 pellets
 ORANGE
 Very faint
 Not determined
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density
- Not applicable
 Not determined
 Not established
 Not applicable
 Not applicable



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Boiling Point: Water solubility	: Not applicable : Insoluble	рН	: Not applicable
	10. STABILITY AN	ND REACTIVITY	
Stability	: Stable.		
Hazardous Polymerization	: Will not occur.		
Conditions to avoid	: Keep away from decomposition, d	00	pen flame. To avoid thermal
Incompatible Materials	: Incompatible with	h strong acids and oxid	lizing agents.
Hazardous decomposition products		CO2), carbon monoxid ardous materials, and s	e (CO), oxides of nitrogen moke 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
105-60-2	Caprolactam	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system, Liver, Kidney, central nervous system (CNS), heart or circulatory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

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
105-60-2	Caprolactam	LC50	300 mg/m3	rat
		Oral LD50	1,210 mg/kg	rat
		Dermal LD50	1410 ul/kg	rabbit

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
13463-67-7	Titanium dioxide	no	2B	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

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NTP Carcinogen Classification 1 - The component is known to 2 - The component is reasonabl	
	12. ECOLOGICAL INFORMATION
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Chemicals are not readily available as they are bound within the polymer matrix.
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the polymer matrix.
Additional advice	: No data available
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastic plastics the product can be recycled. 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 materia 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	: Not regulated for transportation.
ICAO/IATA (air)	: 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.

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US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition : Not applicable 65

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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Not applicable

WHMIS Classification : D1A

WHMIS Ingredient Disclosure List

CAS-No.	
105-60-2	
105 00 2	

DSL

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

National Inventories:

:	Listed
:	Listed
:	Listed
:	Not determined
:	Listed
:	Listed
	: : : :

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16. OTHER INFORMATION

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.